



CBFH
2015

10º Congresso Brasileiro
de Farmácia Homeopática

III Workshop Internacional
de Homeopatia da UFRJ



24 e 25
de Agosto de **2015**

Horário:
9:00h às 17:30h

Tema

Farmácia Homeopática sem Fronteiras

Local:

Auditório Rodolpho - Paulo Rocco (Quinhentão)
Centro de Ciências da Saúde (CCS),
Bloco K Cidade Universitária,
Ilha do Fundão Rio de Janeiro/ RJ

**X Congresso Brasileiro de Farmácia
Homeopática (CBFH) & III Workshop
Internacional de Homeopatia (WIH) da UFRJ**

**X Brazilian Homeopathic Pharmacy Congress
(BHPC) & III International Homeopathic
Workshop (IHW) of UFRJ**

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2015



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Welcome to the 10th Brazilian Congress on Homeopathic Pharmacy and 3rd International Workshop on Homeopathy!

It is with great pleasure that we invite you to the 10th CBFH (Brazilian Congress on Homeopathic Pharmacy) and 3rd WIH (International Workshop on Homeopathy) of UFRJ, that will take place on August 24th and 25th of 2015 in Rio de Janeiro, Brazil.



With the theme “Homeopathic Pharmacy Without Borders” we want to spread the horizons of pharmacists and others healthcare professionals, sharing experiences in homeopathic pharmacy and research around the world.

It will be an unique opportunity to pharmacists from around the world to share experiences about techniques and safe pharmaceutical prescription in homeopathy.

The union of both events, since their conception, assures us that research and practice should walk together.

We choose Rio de Janeiro and these dates because in this week we will have in our city an important worldwide event that is the 70th Congress of the Liga Medicorum Homoeopathica Internationalis. We tried to align the intentions of ABFH Congress, International Workshop of UFRJ and LMHI Congress and provide the pharmacists opportunities to strengthen relationship and explore new possibilities.

I thank to everyone that supported us and believed in this project and wish you all a wonderful Congress.

Mariã Cristina Ferreira Silva

President of the 10th CBFH (Brazilian Congress on Homeopathic Pharmacy)



Dear Colleagues,

The International Homeopathy Workshop at UFRJ was originally designed to disseminate scientific research being developed both in Brazil and abroad. Our first gathering took place in 2011 when we had the honor of hosting both Dr. Moshe Frenkel and Paolo Bellavite, from Israel and Italy, respectively. At that time a special team of national researchers joined us!



On our second edition, held in 2013, we were more daring and with Faperj and other important sponsors such as several Homeopathic Pharmacies we had the participation of two internationally renowned researchers, Dr. Stephan Baumgartner and Dr. Maria Olga Kokornaczyk, from Switzerland and Italy, respectively. Again, this group was reinforced by the presence of many of GIRI's researchers (*Groupe International de Recherche sur l'Infinitesimal*), who are all outstanding professionals in the homeopathic field.

This year the "Third International Homeopathy Workshop" has gone even farther. In partnership with the "Brazilian Association of Homeopathic Pharmacists" the Workshop activities have been made possible due to the support of the "Tenth Brazilian Congress of Homeopathic Pharmacy". The theme chosen for the 2015 Workshop has been: "Homeopathic Pharmacy Without Borders" and the activities will happen at Brazil's renowned Federal University of Rio de Janeiro. This institution is widely known for its excellence in research. This is also the home of expert scientists who are delighted to welcome researchers from seven other countries: England (Dr. Peter Fisher); Italy (Dr. Paolo Bellavite); Spain (Dr. Gema Pons); Scotland (Dr. Steven Kayne); Netherlands (Dr. Martien Brands); Belgium (Dr. Jack Hendrickx); India (Drs. Rajesh Shah and R.K. Manchanda). This winning team of homeopathic researchers will be strengthened by the following Brazilian experts: Dr. Leoni Bonamin; Dr. Rinaldo Ferreira; Dr. Leandro Machado Rocha; Dr. Amarilys Toledo Cesar; Dr. Silvana Marques Araujo.; Dr. Denise Aleixo; Dr. Carolina Oliveira; Dr. Dorly Bucchi; Dr. Cidéli Rabbit; Dr. Talita Barbosa Gomes; Dr. José Carlos Tavares; Dr. Olney Fontes; Dr. Carlos Renato Zacharias and Dr. Carla Holandino.

Many of us are not only presenting papers but also serving in various Scientific Committees this year. To all the members of our Scientific Committee many thanks for your hard work in evaluating each of the 45 scientific papers, submitted to this congress! Yes, 44!! A record that makes us very proud and shows how much we have so far contributed to the development of homeopathic science!

In this event, we shall interact with these authors and discuss different models of research in the fields of pharmacological, pharmacotechnical, physical models, in which different homeopathic drugs were evaluated. In the past few years, homeopathic teaching techniques and its different aspects has also progressed and will also be addressed in this congress.

With confidence that such growth will continue what can we expect from our next workshop, scheduled for 2017? But let us control our anxiety and try to enjoy this moment trusting that the "Third International Workshop on Homeopathy" will indeed happen! We trust that this event will be successful, and that in the next two days we will be together speaking one language towards a higher purpose: to work for a Homeopathy Without Borders!

Carla Holandino

Prof Carla Holandino Quaresma
Coordinator of Third International Workshop on Homeopathy, UFRJ



WELCOME TO THE X ABFH CONGRESS, 2015

Feeling privileged I welcome you to the X ABFH Congress to take part in Rio de Janeiro.

It is a special moment as ABFH reaches its 25th anniversary! Not always easy, but always hard working, with many victories and much happiness, with laughs, friendship and, of course, some hard times. Just like our lives!



But alive! An anniversary together with a beautiful conference, exposing the evolutions of the profession, specially in the homoeopathic area. Pharmaceutics rejoice over achievements in serving the population that look for them for pharmaceutical prescriptions as it disseminate over the country. ABFH breaks new ground not only offering Homoeopathic Pharmaceutical Prescription courses, and associating all its members to the LMHI that will be having its conference at the same moment and the same place, but also organizing and presenting the conference with research in homoeopathy.

Our country is one of the few - and first - to have its national pharmaceutical association specific to homoeopathy. We've made several editions of the Technical Standards Manual for Homoeopathic Pharmacy, whose last version is in review for a new publication in October and we also wrote a Handbook for Dispensing Flower Essences in Pharmacies. Those are texts that contributed to legal resolutions and our pharmacopoeia. We do have some important representatives in basic research and in the Secretary for Pharmacy of the International League, that now accepted us as pharmacists as full members just like the others medical professionals. In Brazil the prescription drugs are made and dispensed in pharmacies, ensuring the individualization of medications, just a few prescriptions are delivered by industrial medications. This shows the strength of the Brazilian homoeopathic pharmacy and the possibility, and needs, to ABFH grow and strengthen, representing this force.

It is worth remembering how it all began. It was the Brazilian Congress of Homoeopathy held in Gramado in 1988, that at the time allowed the participation of pharmacists, veterinarians, dentists, and physicians. The pharmacy section of the Conference had too many attendees and they started a movement to create an association. A National Meeting of Pharmaceutical Homoeopaths was planned and took place in April 1989, and from there the First Brazilian Conference of Homeopathic Pharmacy was scheduled to happen in São Paulo, whereupon the ABFH was officially founded. I was there with my 3 months old daughter.

At the time of the first edition of the Brazilian Homeopathic Pharmacopoeia, that was not really understood nor followed for almost none of the homeopathic pharmacies. Righting a new text was one of the driving force that moved the beginning of ABFH. Thus we started to elaborate different editions that certainly led to the publication of the 2nd than the 3rd and the current edition of the Brazilian Homeopathic Pharmacopoeia. Today we are concluding the review of one more edition of the Technical Standards Manual of ABFH because we believe that we can walk ahead the officinal texts, in addition to detail official texts.

This is, in our thinking, the role of ABFH. To show to associates, or just pharmacists on general, that is possible to face difficulties if we would know how to unit ourselves. To lift our heads, not for being proud or presumptuous, but because in order to see and get further we need to be upright. To encounter our colleagues that somewhere else share the same principles, we need to be alert. And together, awaken, we form an association strong, capable to innovate, to congregate, to dare.



Therefore, the ABFH is already preparing itself for the next Meeting that will be at the CRF-SP Congress, next month of October, in São Paulo city. The test for the title of specialist is still a differential for the pharmacists to proof their knowledge. After conducting the first Homeopathic Pharmaceutical Prescription Course we are preparing to launch it on nationwide. The protocols for the homeopathic pharmaceutical prescription are taking shape. And an Homeopathic Pharmaceutical Specialisation Course is also planned to start in the coming months. We are also counting with the Homeopathy Course for Laboratory Technicians in order to prepare our auxiliaries.

This congress honors all of you that are here, all who have been part of this path and are gone (as the wistful Marta Duarte, daughter of this land), and also all who contribute and have contributed to the Brazilian Homeopathic Pharmacy. It honors all the colleagues who worked to offer a magnificent congress! Inclusive the colleagues from partners and sponsors pharmacies. It honors the professionals, our brothers in homeopathy, who along us seek the knowledge that will lead to health through this therapy. It donors all the ex-presidents, ex-directors and so many who have already worked for the ABFH. It honors yet the national researchers who have advanced so much in their work, untiring fighters. When people ask us about researchs in Homeopathy, I say we are heroes, because we research totally against the tide, beside de ethics committees and the few financial resources offered to our domain. We remember here that ABFH offers a scholarship to research. Not only one but three, and you will see how are these works in development. Neither we can forget the 10 Brazilian Pharmacies that support and contribute to this scholarship monthly.

We want to call back those who have drifted away and have so much to contribute. We want to listen our associates and offer what fulfill their needs as well as pursue new possibilities.

We give you all a warm welcome to this new congress of ABFH. May all of you enjoy it to interact, to learn, to teach, to share with ABFH the pleasant task to carry forward the teachings of Hahnemann, which assures a therapy that is efficient, useful, accessible, safe for the patients and to which we belong, we pharmacists, increasingly, with the professional teams that contribute to a better health os each one of us, and the population.

Be proud of your work as pharmacists. Be proud of your mission in Homeopathy. Be proud of your personal and professional choices. We are all in excellent company.

Welcome to the X Brazilian Congress of Homeopathic Pharmacy! It was made for you!







Amarilis de Toledo Cesar
Presidente da Associação Brasileira de Farmacêuticos Homeopatas



Scientific Program

Time/Day	Saturday, August 22 nd
8h - 9h	REGISTRATION
8h30 - 9h	OPENING
9h - 10h30	POSITIVES EXPERIENCES OF THE HOMEOPATHY TEACHING ON BACHELOR'S/ POSTGRADUATE'S DEGREE JAVIER SALVADOR GAMARRA JUNIOR (ABFH, CRF-PR, UNIANDRADE); LEANDRO MACHADO ROCHA (UFF); SHEILA GARCIA (UFRJ); ALFREDO RIBEIRO FILHO (UNINOVE – SP); TEREZA CRISTINA LEITÃO (IHB); SILVANA MANTOVANI (IHFL); KAREN DENEZ (FUNDAÇÃO HOMEOPÁTICA BENOIT MURE - SC).
10h30 - 10h40	COFFEE BREAK
10h40 -12h20	THE IMPACT OF THE GENERALIST CURRICULUM AT HOMEOPATHY TEACHING ESTER MASSAE OKAMOTO DALLA COSTA (ABEF); ZILAMAR COSTA FERNANDES (CFF); ANA PAULA QUEIROZ (COMISSÃO DE ENSINO DO CFF);
12h20 - 13h	LUNCH
13h - 14h	DISCUSSION GROUP AND PURPOSE PREPARATION
14h - 15h	DOCUMENT PREPARATION FOR THE 10TH CBFH (BRAZILIAN CONGRESS ON HOMEOPATHIC PHARMACY) AND 3RD WIH (INTERNATIONAL WORKSHOP ON HOMEOPATHY) OF UFRJ
Time/Day	Sunday, August 23 rd
9h – 15h	RIO DE JANEIRO CITY TOUR AND LUNCH AT STEAKHOUSE- OPCIONAL AND PREVIOUS REGISTRATION IN TRAVEL AGENCY (phone on page 85) – MEETING POINT: WINDSOR PLAZA IN COPACABANA.



Time/Day	Monday, August 24 th Rodolpho Paulo Rocco (Quinhentão) Auditorium
8h - 9h	Registration
9h - 9h30	OPENING CEREMONY: WALTER DA SILVA JOÃO – FEDERAL COUNCIL OF PHARMACY – CFF MARCUS ÁTHILA – REGIONAL COUNCIL OF PHARMACY – CRF-RJ GISELA MARIA DELLAMORA ORTIZ – DIRECTOR OF THE FACULTY OF PHARMACY OF THE UFRJ CARLA HOLANDINO QUARESMA – COORDINATOR OF THE HOMEOPATHY INTERNATIONAL WORKSHOP OF UFRJ MARIA CRISTINA FERREIRA SILVA – PRESIDENT OF THE X BRAZILIAN CONGRESS OF HOMEOPATHIC PHARMACY AMARILYS DE TOLEDO CESAR - BRAZILIAN ASSOCIATION OF HOMEOPATHIC PHARMACISTS – ABFH
9h30 - 10h10	OPENING CONFERENCE: DR. PETER FISHER  – INTERACTION BETWEEN THE HOMEOPATHIC PHARMACIST AND THE OTHER PRESCRIBERS FOR THE PATIENT’S BENEFIT
SECTION 1 – THEME: HOMEOPATHIC PHARMACY WITHOUT BORDERS – NEW HORIZONS FOR THE PHARMACIST	
10h20 - 10h35	HOMEOPATHY IN THE INDIAN HEALTH SYSTEM - DR.R.K.MANCHANDA 
10h35 – 10h55	PHARMACEUTICAL SERVICES IN HOMEOPATHY - RINALDO FERREIRA 
10h55 – 11h15	COFFEE- BREAK
11h15 – 11h40	HOMEOPATHY FOR PHARMACISTS IN EUROPE – GEMA PONS 
11h40 – 12h15	AVAILABILITY OF REMEDIES – WHAT DOES IT MEAN? A CRITICAL APPROACH – JACK HENDRIX 
12h15 – 12h30	SECTION 1 DISCUSSION
12h30 – 14h	LUNCH
SECTION 2 – THEME: THE HOMEOPATHIC PHARMACEUTICAL PRESCRIPTION	
14h – 14:20h	LEGAL ASPECTS OF PHARMACEUTICAL PRESCRIPTION – TECHNICAL CHAMBER CRFs – TALITA BARBOSA GOMES 
14h20 – 15h15	ACUTE CASES PRESCRIBING – OPPORTUNITIES FOR PHARMACISTS - STEVEN KAYNE 
15h15 – 15h35	HOMEOPATHIC NATIONAL FORMULARY - LEANDRO MACHADO ROCHA 
15h35 – 16h	MUSICAL MOMENT: CORAL MADRIGAL
16h – 16h15	ABFH – 25 YEARS OF ACHIEVES, LEARNING, PROFESSIONALISM AND UNION
16h15 – 17h30	SCIENTIFIC ANNIVERSARY – WORKS EVALUATION BY SCIENTIFIC COMMITTEE AND STUDENTS
HÉLIO FRAGA AUDITORIUM	
16h15 – 16h50	AROMATHERAPY: THE PAPER OF ESSENTIAL OILS INTO THE HOMEOPATHIC PHARMACYS – FERNANDO AMARAL (AROMAGIA)



Time/Day	Tuesday, August 25 th Rodolpho Paulo Rocco (Quinhentão) Auditorium
SECTION 3 – THEME: RESEARCH MODELS IN HOMEOPATHY	
9h – 9h20	COMPARISON OF THYMULIN'S HIGH DILUTIONS' EFFECTS PREPARED IN GLASS AND PLASTIC IN PHAGOCYTOSIS MODULATION IN VITRO (FUNDED BY ABFH) - LEONI BONAMIN
9h20 – 9h40	STABILITY OF ARSENICUM ALBUM 6CH AND 30CH STORAGE IN GLASS AND PLASTIC VIALS (FUNDED BY ABFH) – CARLA HOLANDINO QUARESMA
9h40 – 10h10	HEPATITIS C NOSODES – CLINICAL TRIAL - DR RAJESH SHAH
10h – 10h30	COFFEE- BREAK
10h30 – 10h50	EFFECTS OF HOMEOPATHIC DRUGS IN LEISHMANIASIS – DORLY DE FREITAS BUCCHI
10h50 – 11h20	HOMEOPATHIC REMEDIES IN MALARIA'S TREATMENT: A CLINIC EXPERIENCE IN KENYA - MARTIEN BRANDS
11h30 – 11h50	CELULAR MODELS LIKE SENSORS FOR HIGH DILUTED COMPOUNDS – CAROLINA DE OLIVEIRA
11h50 – 12h10	SECTION 3 DISCUSSION
12h30 – 14h	LUNCH
SECTION 4 – THEME: MECHANISMS OF ACTION OF THE HOMEOPATHIC REMEDIES	
14h – 14h10	LMHI PRESIDENT GREETING – DR. RENZO GALASSI
14h10 – 14h30	HOMEOPATHY VERSUS SERTRALINE IN THE ACUTE AND MAINTENANCE TREATMENT OF DEPRESSION: CLINICAL TRIAL OF NON INFERIORITY, RANDOMIZED, WITH PARALEL GROUPS, PLACEBO CONTROLLED AND DOUBLE BLIND (PROJECT FINANCED BY ABFH) – AMARILYS DE TOLEDO CESAR
14h30 – 15h	HOW DO THE HOMEOPATHIC REMEDIES WORK? - PAOLO BELLAVITE
15h – 15h20	THE ANTIPARASITIC ACTIVITY OF HOMEOPATHIC REMEDIES – DENISE ALEIXO
15h20 – 15h40	SECTION 4 DISCUSSION
15h40 – 16h	COFFEE- BREAK
16h10 – 16h30	PHARMACOLOGY OF HOMEOPATHIC REMEDIES – JOSÉ CARLOS TAVARES
16h30 – 17h	CLOSING CEREMONY – INCENTIVE RESEARCH AWARDS
18h	SOCIAL ACTIVITY – bateria da Ilha do governador
HÉLIO FRAGA AUDITORIUM	
14h30 – 15h30	ABFH ORDINARY MEETING.

Speakers



Dr. Peter Fisher, MD, PhD

Physician, Senior Research

Dr Peter is a prominent figure in the international homeopathic community. He currently serves as Clinical Director and Director of Research at the Royal London Hospital for Integrated Medicine. He is editor-in-chief of Homeopathy and has a significant number of scientific publications.

Lecture: OVERVIEW AND UPDATE OF CLINICAL AND BASIC RESEARCH IN HOMEOPATHY

I will present an overview, update and discuss the current state of research in homeopathy focusing on high quality studies in 3 main areas:

1. **Clinical research** including systematic reviews and meta-analyses of clinical trials and clinical effectiveness research. I will discuss the potential of homeopathy as adjunctive treatment in global public health problems and in the current global crisis in antimicrobial resistance
2. **Biological Model Research** with emphasis on reproducible models including inhibition of human basophil degranulation by very high dilutions of histamine and amphibian metamorphosis models. Also intact animal models including nerve regeneration and anxiety models.
3. **Basic Physical Research** with emphasis on reproducible models showing the presence of nanoparticles of original material, gases or silica in highly diluted, succussed preparations and associated supramolecular structures. Based on methods including low temperature thermoluminescence and nuclear magnetic resonance T1/T2 relaxation times.

I will discuss the implications of this research and next steps. I will briefly discuss the implications for homeopathy of the World Health Organisation's strategy for traditional and complementary medicine 2014-2023.

Speakers

Dr Paolo Bellavite, MD, PhD

Physician, Senior Research



Paolo graduated as MD in 1976 at Trieste University and specialized in haematology. He is professor of General Pathology at the Verona Univ. and at Ngozi Univ., Burundi (as volunteer). Master in Biotechnology and Perfectionation in Health Statistics and Epidemiology. With his group he developed research on inflammation, free radicals, platelet function. He also investigated complementary medicine, dynamic systems theory, scientific aspects of homeopathy, bioethics.

Lecture: HOW DO THE HOMEOPATHIC MEDICINES WORK?

Homeopathy works by stimulating, modulating and directing the “life force” (homeodynamics in scientific terms) which is the actual protagonist of healing process. So, the outcome of the cure depends on the effective interaction between the well manufactured remedy, the patient’s life force and the method of prescription (individualization). This view is still valid, and it is the power of homeopathy. The puzzling theme is that it has been essentially the same for two centuries. Scientifically speaking, this view remains to be documented, proved or disproved, at all possible levels, from single molecules to the whole organism. As for allopathic drugs, likewise for homeopathic medicines there is no a single action mechanism but a panoply of actions at different levels, according to different drugs. Elucidating some effects of natural compounds using scientific tools, provides answers to more precise problems concerning their targets and action mechanism. We describe the principal results of experimental studies aimed at verifying the efficacy of homeopathic medicines in cell models (basophils, granulocytes, macrophages and neurocytes), and in animal models (especially rodents). Besides definitely rejecting the “placebo hypothesis” of homeopathic drug action, these models have ascertained that highly diluted/dynamized drugs act through membrane receptors and are able to regulate cell activities at gene expression level. In some experiments, the main principles of homeopathy, e.g., dilution/dynamization and “similarity” as inversion of drug effects have been confirmed, but these fundamental questions need further corroborations.



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Speakers

Jack Hendrickx



Jack Hendrickx is an industrial pharmacist, Founding General Manager of LABOTICS BVBA, a company which provides validated galenic machinery and equipment for homeopathic medicinal preparation, homeopathic laboratory design. He is also the Founding Executive Director of REMEDY BANK CVBA, a cooperative company for homeopathic starting materials production and certification. Co-founder and secretary of Pharmaceutical Association for Homeopathy (PHARAHOM), Belgium (homeopathic public pharmacies).

He has been an active member and former coordinator of the Pharmacy subcommittee of European Committee for Homeopathy (ECH) over the last years. He has given lectures on LMHI congresses (Amsterdam, Salvador, Graz, Ostend) Recently, teaching in post-university course about homeopathic pharmaceutical technology.

Speakers

Dr Martien Brands



Physician, doctor in homeopathy, teacher, researcher.

Founder and first president of the Dutch section of "Homeopaths without Borders", an independent humanitarian relief and development organization in homeopathic medicine. His main activity has been transfer of homeopathic clinical knowledge and expertise. Dr Martien has been working on research projects in different countries, such as: Ghana, Bosnia, Kenya. He worked as senior lecturer in Liverpool and teacher in Dutch universities. He made his PhD on comparison of diagnosis homeopathy, Chinese medicine and allopathy.

Dr Martien has a practice in a Health Center in Amsterdam and he is coordinator of a data base registration project for the Association of doctors in Integrative Medicine in the Netherlands. He is General Secretary of the GIRI.

Lecture: HOMEOPATHIC TREATMENT OF MALARIA IN KENYA.

Aim: to record systematically homeopathic practices in Kenya. And thereby to substantiate to expand national guidelines in the treatment of malaria. **Material and methods.** We assessed homeopathic practices, existing since 15 years, in four clinics in Kenya. Three studies have been done since 2014, all in the rainy seasons. Focus was on both process (qualitative) and outcome (quantitative) of homeopathic practice. 1. Winter 2013-2014 retrospective, study: all symptoms (classical malária and specific individual symptoms) plus prescription strategies for confirmed malaria patients. Principal component analysis of all affected organ systems and prescribed remedies per person; n =54. 2. Spring 2014, prospective study: all symptoms (malaria, comorbidity and individual symptoms) plus lab data and outcomes (parasite counts and QoL Oridl scale, is the Glasgow Homeopathic Hospital Outcome score, GHHOS); n=86. Comparative statistics between clinics. 1. Spring 2015, prospective study; case-control cohort model; two cohort of patients compared in homeopathic and governmental clinics; one cohort receives homeopathy, the other standard co-artem. Aim: reach a high external validity as health care guidelines change is the primary goal, as both types of medicines have been tested in previous studies for efficacy (Erp and Brands 1996). Data collection in process. Principal component analysis and comparative analysis.



Speakers



Gema Pons, PhD

Pharmacist, Homeopathy Member Board of Pharmacists without Borders of Spain and Vice-President of “Asociación Española de Farmacéuticos Homeópatas (AEFHOM)”. Pharmacist manager working as an integrative Pharmacist in a community pharmacy.

An integrative pharmacist, using this unique educational background, training, and experience, is able to assist patients, physicians, and other health care providers both with conventional drug therapy and with the selection and use of integrative/complementary therapies to enhance care. In this advisory role an integrative pharmacist's primary concerns are patient safety, efficacy of all therapies, appropriate use of evidence-based information, and the fostering of patient responsibility for individual health care choices.

Lecture: THE SITUATION OF HOMEOPATHY FOR PHARMACISTS IN EUROPE

It is well known that there are differences about consideration for Homeopathy around the world. This is an approach of the situation in Homeopathy in Europe from a pharmaceutical point of view. The effort is focused on three subjects which are the availability of Homeopathic Medical Products in the State Members, Legislative and Regulatory Affairs, and Education of the pharmacist. All these subjects are highly related with Research in Homeopathy. European Agencies are favorable to regulate Homeopathic Medical Products but need evidence-based data in order to validate and regulate not only safety and quality but effectiveness in Homeopathic Medical Products. Their priority is safety and they are working on establishing the First Safe Dilution (FSD) for Homeopathic Medical Products due to his nature. Quality is clear if manufactured by authorized laboratories and pharmacies but effectiveness causes controversy among scientists until the advance of fundamental research in Homeopathy. That fact would open doors to include Homeopathy as a subject of a formal education program in all Universities.

Speakers



Dr Rajesh Shah, MD (Hom)

He is a homeopath, researcher, teacher and promoter of scientific homeopathy; treating patients from 180 countries. He has not only developed HIV, Hep C, Tuberculosis and nosodes, but also systematised the method of nosode preparation. He has conducted several provings, clinical trials, animal studies. He is director of Life Force Homeopathy, Mumbai, India.

Correspondence: Rajesh Shah, MD, director, Life Force, 411-Krushal Commercial complex, GM Road, Chembur, Mumbai 400089. India. E-mail: sanjivak@gmail.com Website: www.rajeshshah.com

Lecture: CLINICAL TRIAL FOR EVALUATION OF A HEP C NOSODE IN THE TREATMENT FOR HEPATITIS C (HCV) POSITIVE PARTICIPANTS

Purpose: Identifying the need for alternative treatment to manage immune system, slow the disease progression and improve quality of life; the investigator has developed *Hep C (HCV) nosode* and evaluated its efficacy. **Method:** An open label clinical trial in twenty-four HCV positive individuals was conducted using the HCV nosode in 30c, 50c potencies. Hep C nosode 30c potency was administered for first twelve weeks followed by Hep C nosode 50c potency up to twenty four weeks. **Results:** In this clinical trial, Hep C nosode was administered in the Hepatitis C (HCV) positive participants, where from week twelve to week twenty-four, the mean viral load decreased, and in this period the median viral load decreased by half, from 1,557,567.50 IU/mL to 789,265.50 IU/mL. However, at twenty four weeks, the average viral load increased significantly in the subjects completing the trial. This indicated a double population: a small set of non-responders (n=7) with greatly increasing numbers and a large set of responders (n=17) with impressive improvements. The reduction in viral load was statistically significant in responders from baseline to week twelve (0.0120) and week twenty-four (0.0304) and also from week twelve to week twenty-four (0.0028). The treatment using the nosode was found to be safe in the tested population. **Conclusion:** The study has shown to affect the Hep C viral load using ultra diluted preparation sourced from Hep C virus, as per the Law of Similars, in responders. Further study for longer duration with uniform baseline characteristics and/or by adjusting the potency as per individual participant's requirement is recommended.



Speakers

Dr Steven Kayne



Dr Steven Kayne is a Consultant Homeopathic Pharmacist from Glasgow, Scotland. In addition to prescribing for homeopathic patients in community and hospital practice for more than 40 years, Steven has lectured to health care providers and post graduate and undergraduate students on 5 continents and contributed to numerous international conferences and journals. He has authored and edited many books on complementary and traditional medicine. This will be his third visit to Brazil.

Dr Kayne's lectures will be entitled 'An introduction to prescribing homeopathy in the pharmacy' and 'Prescribing for acute cases'. He will also lead a workshop where participants will be invited to consider some cases from Dr Kayne's practice.

Lecture: PRESCRIPTION IN ACUTE CASES: OPPORTUNITIES FOR PHARMACISTS

The possibility of developing pharmacy into a more clinically based service to augment the traditional compounding and dispensing activities is being considered in several countries. For example, in the UK community pharmacists have an expanding clinical role in the National Health Service with prescribing rights for a wide range of orthodox and homeopathic medicines. While the typical pharmacy environment, limited training, and a need to remain within the limits of their professional competence. Effectively limit the provision of homeopathic medicines to those being used to treat acute conditions, for example coughs and colds, allergic reactions and pain relief, colleagues with more advanced training are able to deal effectively with some chronic cases too. In this presentation guidelines will be given to pharmacists on how they may respond to symptoms in their pharmacies and offer appropriate treatments.



Speakers

Dr. R. K. Manchanda



General Director of Central Council for Research in Homeopathy (CCRH), since 2012, under Ministry of AYUSH, Govt. of India, New Delhi & Secretary for Research, Liga Medicorum Homoeopathica Internationalis. He graduated in Homoeopathy from Nehru Homoeopathic Medical College and Hospital, acquired MD (Hom.) in Materia Medica from Rajasthan University and MBA in Health Care Administration from Delhi University. During 30 years of his professional career, he served in various capacities in the Government sector.

Lecture: HOMOEOPATHY IN INDIAN HEALTH SYSTEM

Medical pluralism is unique to Indian health system, which provides its people the freedom to choose from various recognised systems of medicine, such as Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy (AYUSH), besides biomedicine. After being introduced in India in 1910, Homoeopathy gradually spread in several parts of India through missionaries, lovers of homeopathy and some allopathic doctors, who could control the breakout of various epidemics in the early 20th century. After India became an independent country in 1947, Government of India took cognisance of the growing demand for Homoeopathy, and accorded official status to the system. This was followed by legislative provisions for homeopathic education & clinical practice (1973), drug control (1975) and research (1978). Central Council for Research in Homeopathy (1978; www.ccrhindia.org), and National Institute of Homoeopathy (1975; www.nih.nic.in) are among a few national bodies of Homoeopathy run by the Ministry of AYUSH, Government of India. Presently, India has 187 graduate and 42 post graduate homeopathic medical colleges affiliated to various universities, over 7000 primary healthcare units of Homoeopathy and about 250 thousand registered homoeopathic practitioners. Central Council for Research in Homeopathy engages in the following activities with respect to study of drugs: Standardization (272 studies till now), Proving (96 drugs), and Verification (108 drugs). Further, Council has concluded 128 clinical research studies and 32 basic research studies till now. Some of these studies have been carried out in collaboration with other international/national institutes of excellence. The talk will be highlighting the present position of Homoeopathy in India and project an overview of homoeopathic researches in the country.



Speakers

Dr. Rinaldo Ferreira



Graduated in Pharmacy and Biochemistry from Federal University of Santa Catarina (1986), masters in Food Science from Federal University of Santa Catarina (1995) and PhD in Life Science from Sevilla University (2004). Pharmacist from Visnature Homeopathy Pharmacy, vice president of Associação dos Farmacêuticos Proprietários de Farmácia do Brasil, President of Farma & Farma S.A., Member of Technical Thematic Committee in Homeopathy of Brazilian Pharmacopeia, Technical Consultant of Federal Pharmacy Council. Has experience in Pharmacy area, working mainly with homeopathy, pharmaceutical attention, medicines, phytotherapy, fluoro and buffer capacity.

Lecture: PHARMACEUTICAL SERVICES IN HOMEOPATHY

In recent years, the pharmacist is gradually assuming clinical activities in homeopathic pharmacy. Without neglecting the quality of the medicine, the pharmacist begins to realize that for the medicine does its job, he has to look at the patient. The medicine must be necessary, effective and safe for the patient. Thereunto, the pharmacy must offer specific services and procedures, comfortable infrastructure, and the pharmacist also needs to have knowledge and relevant skills. Services that must be offered in the pharmacy are: health screening, health education, dispensation, problem management self-limited health, review of pharmacotherapy, conciliation medicines and pharmacotherapeutic monitoring. Among the procedures that must be offered in the pharmacy are: verification / monitoring of clinical parameters, medicine administration and the organization of medicines. Brazilian law recognizes the pharmacy as health establishment and the pharmacist as a professional that must promote health and not only the production of the medicine. Patient care is the future of homeopathic pharmacist.

Speakers



Dr Dorly de Freitas Buchi

Graduated in Natural History at the Federal University of Paraná (1971), masters in Genetics at the Federal University of Paraná (1975) and PhD in Biophysics at the Federal University of Rio de Janeiro (1993). Has experience in Morphology, focusing on Cytology and Cellular Biology, working with macrophages, homeopathy and activation.

Lecture: NEW GATEWAY IN LEISHMANIASIS TREATMENT WITH A HOMEOPATHIC COMPLEX

Leishmaniasis is still one of the world's most neglected diseases. Cutaneous Leishmaniasis causes ulcers on exposed parts of the body, leading to disfigurement, permanent scars, and stigma. Immunotherapy remains the subject of intense investigation. Over the past years our research group has been testing the action of highly diluted substances and tinctures on cells from the immune system, and also on tumor cells. As *L. amazonensis* are parasites that replicate within parasitophorous vacuoles of host macrophages, the aim of this study was to evaluate what happened when mice Balb/c-bearing *Leishmania amazonensis* were treated *in vivo* with one of these new complexes, specifically the **M1**. Animals were infected on foot pad cushion, and after 60 days, they were orally treated for 30 days. The lesions were collected to determine parasite load and histology. During treatment with M1 the lesions caused by the parasite had delayed their progress, and the size / thickness of the injuries decreased. The lesions were not ulcerated, and it was clear their reduction. The production of large and numerous parasitophorous vacuoles containing many amastigotes located on the outskirts are characteristic of infection with *L. amazonensis*, but M1 changed this. The distribution of amastigotes within these vacuoles was central, with fewer parasites, and presents a matrix as if they were destroyed. Besides, M1 reduced the number of the parasites extracted from the lesions (*** $p < 0.001$). So, the results *in vivo* with M1 treatment are amazing and promising, since the product allowed a delay in evolution of lesions, and prevented the formation of ulcerative lesions, which are often the causes of social stigma in humans.

Speakers



Dr Jose Carlos Tavares

Graduated in Pharmacy from Federal University of Pará (1989), masters in Drugs and Medicines from University of São Paulo (1993) and PhD in Drugs and Medicines from University of São Paulo. Ex-chancellor from Federal University of Amapá (2006-2014). Full professor from Federal University of Amapá. Full member of National Pharmacy Academy, deliberative member of Brazilian Pharmacopeia, member of Phytotherapy Technical Chamber from ANVISA and Coordinator of Support Committee of Herbal Medicines Policy from Brazilian Pharmacopeia.

He has experience in Pharmacy, acting on the following subjects: anti-inflammatory, analgesic and phytotherapies.

Lecture: PHARMACOLOGY OF HOMEOPATHIC MEDICINES

As the pharmacology the science that studies the history, the physical and chemical properties, biochemical and physiological effects, mechanism of action, absorption, distribution, biotransformation, excretion and therapeutic uses of drugs, so homeopathic medicines should be studied on this perspective, taking into account the pharmaceutical technology that gave rise.

In the pharmacological study of homeopathic medicines, it is worth considering the essential themes of thought Samuel Hahnemann, who for multiple routes of homeopathic research Hahnemann introduced: 1) a method; 2) Experimental procedures; 3) order practice recommendations; 4) the Organon of the Healing Art and 5) the treatment of chronic disease: miasma and psora, as well as considering the scientific basis of homeopathy whose fundamental principle the "law of analogy or similarity - Similia similibus curantur". Therefore, considering the classical methods of modern pharmacology and homeopathic bases, one can illustrate the action of simple and complex homeopathic medicines in non-clinical *in vivo* assays for activities: anxiolytic, antidepressant and anti-inflammatory.



Speakers



Dr Talita Barbosa Gomes

Pharmaceuticals

Specialist in Homeopathy - IHB

Specialist Magistral Handling - ANFARMAG

Graduate Student in Pharmaceutical Prescription

Master of Health Science Education and Environment

Lecture: LEGAL ASPECTS OF THE PHARMACEUTICAL PRESCRIPTION

The Pharmaceutical Prescription is already a reality in the Brazilian legislation in light of new resolutions of National Health Surveillance Agency (ANVISA) and the Federal Council of Pharmacy. The pharmacist should be aware that shall indicate security, ethics and responsibility, and for that it is important to remember that the act of prescribing medicines and therapies related to complementary and integrative practices, should be based on knowledge and skills related to these practices, because it is medicine prepared from substances that are submitted to successive crunches or dilutions followed by succussion, or other form of rhythmic shaking according to homeopathic therapy homotoxicological or anthroposophic, and learn to identify products that can be displayed and understand all the practical implications.

Speakers



Dr Carla Holandino Quaresma

Pharmacist graduated in Federal University of Rio de Janeiro. Masters in Biophysics and PhD in Sciences from Biophysics Institute Carlos Chagas. Titular, member of Brazilian Hahnemannian Institute (IHB-UNIRIO). Vice President of GIRI, associate professor in School of Pharmacy from UFRJ and coordinator of Multidisciplinary Laboratory of Pharmaceutical Sciences (UFRJ).

Member of fiscal council of Brazilian Association of Homeopathic Pharmacist, member of technical thematic committee of Brazilian Homeopathic Pharmacopeia (ANVISA) and member of a group of Work in Homeopathy (GT/CFF).

Lecture: ANALYTICAL AND STABILITY STUDIES OF *ARSENICUM ALBUM* SOLUTIONS: A COMPARATIVE STUDY USING PLASTIC AND GLASS STORAGE VIALS

Introduction: The stability of *Arsenicum album* homeopathic solutions have not been reported or studied extensively. In this work, we report the stability of *Arsenicum album* solutions stored in glass type III and in high-density polyethylene terephthalate (PET) vials. The homeopathic solutions (6 and 30CH) were prepared in accordance with Brazilian Homeopathic Pharmacopoeia. These solutions will be stored for 2 years in climate chambers ($30 \pm 2^\circ\text{C}$ and $75 \pm 5\%$ of relative humidity) and shelf life room temperature (27°C), following the Brazilian normative instruction (IN 04). Considering this protocol, aliquots of each vial must be analyzed in specific period of storage (0, 3, 6, 9, 12, 18, 24 months), and submitted to analyses of density, microbial, pH and refraction index. Additionally, electrical conductivity measurements were added. The results of the first six months of storage were compared by analysis of variance and Tukey test. The density values considering glass and PET vials were, respectively: 0.86192 ± 0.00233 (T0); 0.85699 ± 0.00484 (T3); 0.86081 ± 0.01348 (T6) glass vial, and 0.86063 ± 0.00162 (T0); 0.85809 ± 0.00490 (T3); 0.85728 ± 0.00147 (T6) PET vials. Moreover, the packaging vial composition (glass or plastic) did not influence significantly ($p > 0.05$) the other parameters analyzed, such as: pH (around 6.0); refraction index (1.363) and microbiological assays (absence of *E. coli* and mold). Besides, no changes in color, macroscopic appearance or precipitates were observed, in the first six the months of this study. This project will provide relevant information about the homeopathic medicines stability, bringing important results about the storage of homeopathic solutions in plastic and glass storage vials.

Speakers



Dr Denise Aleixo

Pharmacist, PhD in Health Science and post-doctoral scholarship of CAPES/FA in State University of Maringá. Parasitology teacher since 2006. Acting on researches related with parasitology and diluted medicines with participation in multicenter international project of GIRI group

Lecture: HOMEOPATHY IN PARASITIC DISEASES

Homeopathic medicines show benefits in parasitic diseases. The parasite load is directly related to morbidity where the organic homeostasis are altered as a reflect of the imbalance in the parasite-host relationship. However, when individuals and species are considered individually, is possible to observe important differences. A research conducted by our group was accomplished by surveying of scientific papers of animals treated with homeopathy. In this research, models like bovine and ovine infested by arthropods or infected by helminth presented clinical improvement with reduction of parasitic load. However to resistant models such as a rat model of infection by *T. cruzi*, the use of homeopathy is not always accompanied by a decrease in parasite load, however, clinical benefit is also observed. In the last years which we have studied *T. cruzi* infection in the mouse, a very sensitive model for *T. cruzi*, using homeopathy, it was observed that morbidity not always directly related to the parasitemia. The medicines does not exercise parasiticide effect in every situation, but rebalancing the organism towards the "cure." In a recent study, we tried to treat the infection with biotherapy made from serum. Mouse serum passes an information on susceptible state, and rabbit serum passes an information of partial resistance specie, better if taken from a healthy animal. Therefore we conclude that homeopathy is beneficial in parasitic diseases as long as it considered the particularities of each individual and species.

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Speakers



Dr Amarilys Toledo Cesar

Graduated in Pharmacy and Biochemistry from University of São Paulo, master in Nutrition in Public Health from Public Health College and PhD in Public Health from University of São Paulo. Responsible professor for Pharmacy in Homeopathic course from Jundiaí Medicine College. Member of the scientific commission of Brazilian Association of Homeopathic Pharmacist (ABFH) and responsible editor for Pharmacology in the International Journal of High Dilution Research.

She has experience in Pharmacy, focusing on Homeopathic pharmacy, as homeopathy, homeopathic medicine and homeopathic pharmacy.

Lecture: FIFTY MILESIMALS MATRIZES AFTER 15 YEARS OF THEIR PREPARATION VERSUS SERTRALIN IN THE ACUTE AND CONTINUATION TREATMENT OF MAJOR DEPRESSION IN A NON-INFERIORITY, RANDOMIZED, PARALLEL-GROUP, PLACEBO CONTROLLED AND DOUBLE-BLIND CLINIC STUDY

Introduction: matrizas (or sources) are active stock insumes, used for the preparation of homeopathic medicines or for other derived pharmaceutical forms. Despite their importance for homeopathic pharmacies and laboratories, and for the homeopathic clinic, there ar no clinical studies on the expiring date of those active insumes. **Objective:** to test homeopathic matrices after 15 years of their first preparation, in a randomized, controlled, parallel-group, double-blind, double-dummy, non-inferiority trial that investigates the efficacy and tolerability of the homeopathic protocol (*Organon.modus*) in the acute and continuation treatment of major depression, using Sertraline as active control. **Methods:** fifty milesimals matrices prepared in 2001 and 2002 are individually prescribed according to *Organon.modus* protocol to 220 adults meeting the International Classification of Diseases (ICD-10) criteria for depression, following a structured clinical interview. The primary endpoint is the total score on the Montgomery & Åsberg – (MADRS) after twelve and twenty four weeks. Secondary end points are: MADRS total score (with the exception of the primary endpoint); score of the DSM-5 Self-Rated Level 1 Cross-Cutting Symptom Measure-Adult; response and remission rates, quality of life (SF-12), adverse events and dropouts.

Speakers

Dr Leoni Villano Bonamin



Graduated in Veterinary Medicine from University of São Paulo, Masters and PhD in Experimental Pathology from University of São Paulo. She was President and Vice President of GIRI (Groupe International de Recherche sur l'infinitésimal). Nowadays she was full professor of University Paulista, collaborator in University of Santo Amaro (UNISA), editor of GIRI and member of editorial group at International Journal of High Dilution Research (IJHDR).

She is accredited researcher on the Homeopathy Research Institute (HRI, UK). She is post-doctoral in Experimental and Environmental Pathology from UNIP and National Coordinator of multicenter project Brazil–Italy about effects of *Zincum metallicum* homeopathic medicine.

Lecture: COMPARISON OF ARSENICUM HIGH DILUTIONS EFFECTSON PHAGOCYTOSIS *IN VITRO* WHEN PREPARED IN GLASS AND PLASTIC VIALS

According to the so-called "silica hypothesis," the information of the original materials for the preparation of homeopathic medicines would be transferred by epitaxyto silica nanoparticles (NP) detached from glass walls, after the agitation process. The NPs, in turn, would be able to transfer this information back to organic macromolecules, including DNA and proteins. The objective of this study is to compare the effect of homeopathic dilutions of Arsenicum album prepared in both glass and plastic containers, using a known experimental model *in vitro*: the activation of spreading and phagocytosis in RAW macrophages stimulated by bread yeasts. The preliminary results obtained with Arsenicum 30K have shown that this medicine, when prepared in plastic, lead to increase in macrophage spreading, by measuring cell area and breadth automatically, using the software Metamorph® (ANOVA, $p = 0.065$), without changing the phagocytic index, comparing to the control (succussed vehicle). These initial data suggest that the use of plastic vials in the preparation of homeopathic medicines can result in changes in the outcomes. However, more results and repetitions are needed to a definitive conclusion, such as: testing different potencies and scales, evaluation of other macrophage parameters, like antigen presentation, production reactive oxygen species and cytokine secretion. This study is still in course.



Speakers

Dr. Carolina de Oliveira



Graduated in Biological Sciences from Federal University of Paraná. PhD in Molecular and Cell Biology from Federal University of Paraná. Post-doctoral in University of British Columbia. Nowadays is professor from Cellular Biology Department in UFPR. Has experience in cell biology, focusing on morphology and cell signaling, working with macrophages, cell culture, high dilution, leishmaniasis and melanoma.

Lecture: CELL-BASED MODELS AS SENSORS TO HIGHLY DILUTED COMPOUNDS

Highly diluted compounds act as immune system enhancers, fighting various diseases. Over the past decade scientific research has increase in order to determine how these therapy works. Macrophages play an important role responding to treats, such as pathogens and tumors. Tumor cells often circumvent immune surveillance and lead to a deadly disease called cancer. *In vitro* cell-based models used are increasingly growing to screen potential drugs to be further used in human tests. In the case of homeopathy, it is now the other way around, as people have been using it without any evaluation *in vitro*. Thus in order to investigate the effects of 5, 6, and 30 CH *Zincum Metallicum*, and *Arsenicum trioxide* in cell-based models we have evaluated cell activation and tumor cells features in murine primary macrophages, RAW, and melanoma B16F10 cell lines Cytokines production, and activation markers when challenged *in vitro* were detected by flow cytometry. B16F10 cell proliferation and viability were determined by crystal violet and MTT assays. All data were submitted to statistical analysis. These highly diluted compounds in different potencies did not change murine macrophages and B16F10 cells biological responses. Further testing may be performed in order to determine if other parameters are affected.



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Speakers

Dr Leandro Machado Rocha



Graduated in Pharmacy from the Federal Fluminense University (1984), MSc in Natural Products Chemistry from the Federal University of Rio de Janeiro (1991) and PhD in Pharmacy - University of Lausanne (1995). He is coordinator of the Natural Products Technology Laboratory, Department of Pharmaceutical Technologies of the Faculty of Pharmacy of the UFF. Currently, he is Associate IV Professor of the Universidade Federal Fluminense, and member of the Brazilian Pharmacopoeia.

He participated in the preparation of the fourth and fifth editions of the Brazilian Pharmacopoeia. He is coordinator of the Theme of Homeopathy of the Brazilian Pharmacopoeia Committee that drafted the third edition of the Brazilian Homeopathic Pharmacopoeia. He was Visiting Professor at the University Paul Sabatier - Toulouse III. He has experience in Pharmacy, with emphasis on natural products. It develops projects with plant species of Restinga National Park Jurubatiba RJ.

Lecture: BRAZILIAN PHARMACOPEIA FORMULARY OF HOMEOPATHIC MEDICINES

The elaboration of a Brazilian Pharmacopoeia Formulary of Homeopathic Medicines will enable the creation of a new medicine category: Official Homeopathic Medicines. After its implementation, we will have a list of propositive medicines to create the Homeopathic Public Pharmacy and for the homeopathic medicine prescribers, as well as to contribute with the logistic supply of official homeopathic medicines in health centers. The Brazilian Pharmacopoeia Formulary of Homeopathic Medicines will include 86 medicines for internal use and 12 medicines for external use, summing up 98 single component medicines (without association). The prescriptions are presented in the traditional Homeopathic Medicine subject and recognized by ANVISA (National Health Surveillance Agency). There are foreseen pharmaceuticals forms for internal and external use, as droplets, globules, tablets, powders, gels, ointments, creams as well as others pharmaceuticals basis. We expect to make an amount of 98 official medicines available to the Brazilian people through such publication, contributing to catalyze the use of Homeopathy in the Brazilian public health care system (SUS), to the strengthening of Pharmaceutical Assistance, and to the optimization of homeopathy prescription in SUS.



Posters presentations

- A01** Influence of temperature and room humidity changes on the development of capillogram used in quality control of homeopathic tinctures
- A02** Biotherapy of rabbit serum reduces parasite load and inflammation in the heart of mice infected with *Trypanosoma cruzi*
- A03** Effect of biotherapies prepared from serum of rabbit and mice in experimental infection with *Trypanosoma cruzi*
- A04** The Teaching of Homeopathy in Medicine: the Creation of a League Academic
- A05** Oscillatory potency-effect-curve of biotherapies on survival of mice infected by *Trypanosoma cruzi*
- A06** Pharmaceutical care in homeopathic treatment
- A07** Analytical and Stability Studies of *Arsenicum album* Solutions: a comparative study using plastic and glass storage vials
- A08** Physico-chemical analysis of *Arsenicum album* and *Zincum metallicum* in different homeopathic potencies
- A09** Technical assessment of homeopathic pills impregnation in the pharmacy university of universidade federal fluminense
- A10** Integrative and complementary practices in professional training health
- A11** Homeopathy in SUS unified health system: reflections on the practice homeopathic in primary health care in Brazil
- A12** Homeopathy in the treatment of metabolic syndrome of alcohol
- A13** The Production of organotherapies from a sheep
- A14** Monitoring and determination of shelf life of the stock of homeopathic matrices (sources)
- A15** The status of homeopathy in the teaching Hospitals Clementino Fraga Filho and Instituto de Puericultura e Pediatria Médica of the Federal University of Rio de Janeiro.
- A16** Use of homeopathy by Brazilian pet guardians
- A17** Antitumoral activity of dynamized and non-dynamized *Viscum album* samples: an *in vitro* assay
- A18** Practical need for pharmaceutical care to patients using Homeopathy
- A19** The importance of implementing the discipline Homeopathy in the undergraduate curricula from the Faculty of Health Sciences of the University of Brasília



- A20** Cardiac histopathology of mice infected by *Toxoplasma gondii* and treated with *Lycopodium clavatum*
- A21** Highly diluted natural complex (M1) modulates metastatic phenotype of murine melanoma cells *in vitro*
- A22** *Atropa belladonna* 200CH “*in vitro*” treatment increases intracellular reactive oxygen species and initial apoptosis of murine melanoma B16F10 cells.
- A23** Evaluation of co-cultured of macrophages and *Leishmania* (*L.*) *amazonensis* after treatment with homeopathic preparations
- A24** Effect of *Ignatia amara* on anxiety in mice model
- A25** Protective effect of ultra-diluted remedies against mother tincture in cell culture
- A26** Raman spectroscopic studies of *Thuya occidentalis* and *Arnica montana* and their potencies.
- A27** Evaluation of *Staphylococcus aureus* Biotherapeutic's effects in bacterial cultures from the genus *Staphylococcus* and *Micrococcus*
- A28** *In vitro* effect of *Candida albicans* nosode in MA104 cells
- A29** Development and evaluation of *Leishmania infantum* biotherapeutic in BALB-c mice: a pilot study
- A30** *In vitro* effects of *Leishmania infantum* biotherapeutic on nitric oxide production by RAW 264.7 macrophages
- A31** Treatment with *Zincum metallicum* increase survival in mice infected by *Trypanosoma cruzi*
- A32** *Zincum metallicum* modulates INF γ and TNF α increasing the survival in *Trypanosoma cruzi* infection.
- A33** Influence of cytokine IFN- γ and TNF- α in the reduction of *Toxoplasma gondii* cysts in mice treated with 200dH biotherapeutic and infected by protozoan
- A34** Effect of the ethylic alcohol dinamized (6 and 30Ch) in mice infected by *Trypanosoma cruzi*
- A35** Highly diluted drugs reduce parasitaemia and alter survival in mice infected by *Trypanosoma cruzi*
- A36** *Kalium causticum* 13CH modulates cytokines improving parasitological parameters but not survival in mice infected by *T.cruzi*
- A37** Technological Development and Physical Characterization of Inert Homeopathic Globules



A38 Study on homeopathic drugs used for treatment alcoholism

A39 Posology of Homeopathic medicines

A40 Homeopathic constitution type of children with nocturnal bruxism and association with sleep quality and other parasomnias

A41 Two cases report comparing histopathological features of canine transmissible venereal tumor (TVT) after treatment with decimal potencies of *Viscum album* or Vincristine

A42 Carbo animalis and immune response to Ehrlich ascites tumor in mice: an experimental model

A43 Benefits and side effects of homeopathic medicines in mice bearing Ehrlich tumor

A44 Obtaining a hydroalcoholic solution from smoke's cigarette as possible treatment of smoking



Abstracts

A01 - Influence of temperature and room humidity changes on the development of capillogram used in quality control of homeopathic tinctures

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Background: One of the most used inputs in the manufacture of homeopathic medicines is the mother tincture. A seemingly useful method for quality control of mother tinctures is the capillary analysis [1,2]. This chromatographic method has the disadvantage of often forming irregular and overlapping bands [3]. **Aims:** The aim of this study is to evaluate the influence of temperature and humidity changes on the development of capillogram used in quality control of homeopathic tinctures. **Methods:** Assays were performed in duplicate with the mother tinctures of *Pulsatilla nigricans* (n = 8) and *Aloe socotrina* (n = 8). Capillogram were obtained with Hugo Platz capillary analysis method [4]. During the 24 hours of capillogram test were done the maximum and minimum measurements of room temperature and humidity. The average results obtained were organized into different thermo-hygrometric groups. The description of the spectra of capillaries was done by considering the height of the capillaries flows and the aspect of bands. The relationship between the height of variables race, room temperature and humidity was verified by using the Spearman correlation coefficient [5]. **Results:** While the warmer environments generated lower capillaries flows, the most humid environments generated higher capillaries flows. It was observed in the lower capillaries flows approaching bands or overlapping bands, more intense colors and narrower bands. **Conclusions:** The results suggest that the thermo-hygrometric conditions influence the height of capillary flow of the mother tincture on the chromatographic paper as well as on the aspect of the capillogram.

Keywords: Capillary analysis, Capillogram, Quality control of mother tincture.

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Conflict of interest: The authors declare that there is no conflict of interest.



A02 - Biotherapy of rabbit serum reduces parasite load and inflammation in the heart of mice infected with *Trypanosoma cruzi*

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Introduction: *T. cruzi* biotherapies alter the course of infection by this protozoan [1-3], fact that encourages the study of these medicines prepared from different active ingredients. **Objective:** To evaluate the effect of biotherapy produced from rabbit serum 13cH in mice infected with *T. cruzi*. **Methodology:** Sixteen male Swiss mice, 28 days of age, were used (protocol no. 080/2012-UEM). The animals were inoculated with 1400 trypomastigotes - Y strain and divided into groups: IC - Infection Control, treated with alcohol solution 7%; BRS13cH - treated with Biotherapy of Rabbit Serum 13cH. Biotherapy: was prepared from healthy rabbit serum in dynamization 13cH, according to Brazilian Homeopathic Pharmacopoeia [4]. The animals received the medications on days 4, 7 and 10 after infection (a.i.) for 16 consecutive hours, diluted in water (10µL/mL). Histopathological parameters: on days 8 and 12 a.i., 4 animals/group were sacrificed to collect heart. We analyzed the number of amastigote nests, number of amastigotes/nest and inflammation [3]. Statistics: parasite load and inflammation were analyzed by Mann-Whitney and Fisher's exact tests respectively, 5% significance. **Results:** On day 8 a.i. due to scarcity of tissue parasitism, the experimental groups showed no significant differences in parasite load and inflammation in the heart. However, on day 12 a.i. number of amastigotes nests, amastigotes/nest and heart inflammation were significantly lower in BRS13cH group compared with IC (p <0.001). **Conclusions:** Biotherapy of rabbit serum showed a beneficial effect, reduced parasitic load, and inflammatory processes in the heart, organ related to main morbidity of *T. cruzi* infection.

Keywords: Homeopathy, Biotherapies, *Trypanosoma cruzi*, histopathology.

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Conflict of Interests: "the authors declare that there is no conflict of interests".

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A03 - Effect of biotherapies prepared from serum of rabbit and mice in experimental infection with *Trypanosoma cruzi*

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Introduction: Biotherapies are a possibility to treat *Trypanosoma cruzi* murine infection [1-3].

Objective: To evaluate the effect of biotherapies produced from serum of rabbit and mice, healthy or infected, on *T. cruzi* infection parameters. **Methodology:** Ninety five male Swiss mice were inoculated with 1400 trypomastigotes –Y strain and divided: IC –treated with alcohol solution 7%; BHRS–treated with Biotherapy of Healthy Rabbit Serum; BRSI–treated with Biotherapy of Rabbit Serum Infected with *T. cruzi*; BHMS–treated with Biotherapy of Healthy Mice Serum; BMSI–treated with Biotherapy of Mice Serum Infected with *T. cruzi*. Biotherapies were prepared in the potency 13CH [4]. Mice received medications two days before infection and on days 2, 5 and 8 after infection (a.i.), for 16 hours diluted into the drinking water (10µL/mL). Parasitological parameters and Serum cytokine dosage (IL-4, IL-17, IFN-γ on days 0, 8 and 12 a.i) were evaluated. Statistical analysis: ANOVA, being $p \leq 0.05$. **Results:** BHRS exhibited lower patent period and parasitemia peak, decreased IL-17 and increased IFN-γ (0 a.i.) compared to IC. BMSI presented lower patent period and increased parasitemia peak and total parasitemia, increased IL-4 (0 and 8 a.i.) and decreased IFN-γ (12 a.i.) compared to IC. BRSI and BHMS presented no significant parasitological differences, but they modulate immune response; BRSI decreased IL-17 (0 a.i.) and BHMS decreased IL-17 (0 a.i.), IL-4 (0, 8 and 12 a.i.), and IFN-γ (8 a.i.) compared to IC. **Conclusions:** BHRS immunomodulatory action benefits the host and, BMSI immunomodulatory action harms the host.

Keywords: Homeopathy, Biotherapies, *Trypanosoma cruzi*, Cytokine.

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Financial support: this work was supported by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - CAPES/PROAP and Convênio Fundação Araucária - UEM. “We had full access to all the data from this study and we assume full responsibility for the integrity and accuracy of the data analysis.”



A04 - The Teaching of Homeopathy in Medicine: the Creation of a League Academic

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Introduction: The interest in complementary and integrative practices (PIC) has increased substantially in recent years [1]. Among these practices, homeopathy follows strengthened as medical science, supported by national and international strategies and policies of health [2, 3]. In pharmacy courses the teaching of homeopathy is already a reality [4], however, although recognized as a medical specialty [1], homeopathy teaching in medicine is still incipient. The absence of regular teaching of these therapeutic in most medical schools throughout the country is responsible for the lack of knowledge of some professionals, providing this practice insufficiently to the demand of the population. Increasing access to knowledge in academic environment is essential to change this reality. **Aim:** The study aims to present a league of Complementary Medicine in the Medicine course of UniCesumar (Maringá-Paraná) and the importance of academic leagues. **Methodology:** To present an academic league as knowledge tool in homeopathy, based on the experience of Academic League in Complementary Medicine in the Medicine course of UniCesumar (Maringá-Paraná), created in 2015, to increase homeopathy teaching. The study includes the structuring and formation of the academic league and out through literature reviews, the importance of this knowledge tool. **Results:** The League has the participation of students from different years of medical school and professionals of PIC. The meetings are realized periodically involving discussion about the principles of complementary practices, clinical use and current research. Teaching, research and extension were planned, aspiring to carry out activities focused on population. **Conclusion:** The Academic League in Complementary Medicine in the Medicine course of UniCesumar is pioneering in the state and represents an investment in complementary and integrative practices. Is noteworthy that the homeopathy implantation in the teaching of medicine is in accordance with policies and global health initiatives being sine qua non condition for that homeopathy has its place in modern medicine.

Key words: Homeopathy; Medicine; Complementary Therapies; Medical Schools

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A05 - Oscillatory potency-effect-curve of biotherapics on survival of mice infected by *Trypanosoma cruzi*

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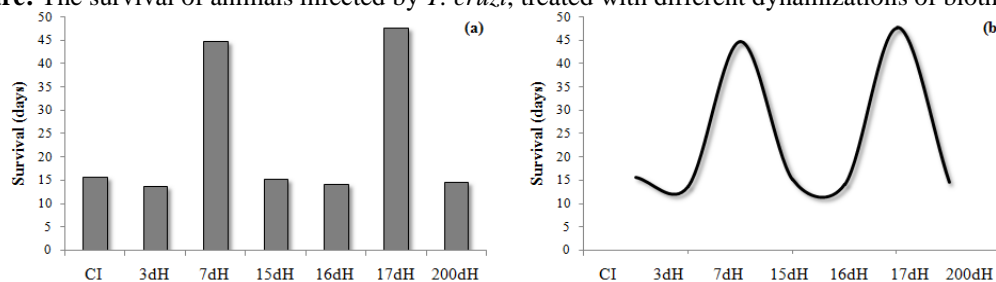
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Introduction: The murine infection by *T. cruzi*, using Y strain, is a well defined experimental model [1]. Biotherapics medicines are prepared according to homeopathic pharmacotechnics from organic products [2]. **Aim:** Evaluated the survival of animals infected by *T. cruzi* and treated with biotherapics in several dynamizations. **Methods:** A blind, controlled and randomized trial were conducted and approved by Ethics Committee for Animal Experimentation/UEM (030/2008). Swiss male mice aged 4-weeks-old were infected with 1,400 tripomastigotes of *T. cruzi* intraperitoneally [3] and divided: C.I.- treated with 7% ethanol-water dynamized; 3dH, 7dH, 15dH, 16dH, 17dH and 200dH groups - treated with biotherapeutic. The biotherapeutic was prepared according to homeopathic pharmacotechnics from blood trypomastigotes of *T. cruzi* Y strain. The treatment were offered *ad libitum*, 3 days before and 3 days after infection. The survival was computed during the experiment. Statistical comparison considered significance of 5%. **Results:** The survival data showed an oscillatory potency-effect-curve [4] (figure 1). The groups 7dH and 17dH presented two animals each one that stayed alive during all evaluated period. In contrast, 3dH and 200dH demonstrated untimely death compared to C.I. group ($p < 0.05$). Survival represents a beneficial effect of the medicine considering the model used as a model with irreversible damage that evolves with the death of infected animals. **Conclusion:** The data showed an oscillatory potency-effect-curve with effective and ineffective action. The 7dH and 17dH presented beneficial results in this model. The knowledge of oscillatory potency-effect-curve can optimize the choice of different dynamizations in clinical use in humans, takes into account each organism.

Figure: The survival of animals infected by *T. cruzi*, treated with different dynamizations of biotherapics.



1a) Survival in days of animals treated with biotherapics 3dH, 7dH, 15dH, 16dH, 17dH and 200dH. 1b) Oscillatory potency-effect-curve of survival of animals treated with biotherapics 3dH, 7dH, 15dH, 16dH, 17dH and 200dH.

Key-words: homeopathy, biotherapeutic, senoidal.

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A06 – Pharmaceutical care in Homeopathic Treatment

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Abstract: homeopathy is a therapy based on the principle of similarity [1]. This therapy was proposed by the father of medicine, Hippocrates for almost 3000 years, thus developing the principle "*Similia similibus curantur*" [1]. Therapy with homeopathic medicines is widely used in therapeutics, but the patient often has difficulty in understanding how the treatment should be conducted [2] [3]. The Pharmaceutical Care, one pact relationship between patient and pharmacist, presents itself as an appropriate tool to assist in obtaining positive results in homeopathic therapy [4] [5]. **Objectives:** to demonstrate how the pharmacotherapeutic follow - AFT assists in detecting and solving problems related to homeopathic medicine and promotes improvements in response to treatment. **Methodology:** we performed literature review of the portals: SCIELO, MEDLINE and Google academics. Patients were interviewed by Pharmacotherapeutic monitoring that was conducted – AFT employing the Dader method adapted to pharmaceutical care in homeopathic medicines in a pharmacy, this place was Homeopathic Pharmacy Doce Flora, located in Duque de Caxias-RJ, from November – December 2010 and January 2011. The research was previously approved by the Research Ethics Committee of the Unigranrio (CAAE: 4531.0.000.317-10). **Results:** in the first of three interviews were identified PRM's - Problems Related to medicine, having been required to apply IF - pharmaceutical intervention to adjust the behavior of the patient regarding the treatment and improvement of the results. **Conclusion:** the pharmacotherapeutic follow - AFT - introduced himself as appropriate methodology for managing patients on therapy with homeopathic medicines, and an improvement factor in the outcome of treatment of the patients.

Keywords: homeopathy, pharmaceutical care, interview.

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A07 - Analytical and Stability Studies of *Arsenicum album* Solutions: a comparative study using plastic and glass storage vials

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Introduction: The stability of *Arsenicum album* homeopathic solutions have not been reported or studied extensively. **Objectives:** In this work, we report the stability of *Arsenicum album* solutions stored in glass type III [1] and in high-density polyethylene terephthalate (PET) vials. **Methodology:** The homeopathic solutions (6 and 30CH) were prepared in accordance with Brazilian Homeopathic Pharmacopoeia [1]. These solutions will be stored for 2 years in climate chambers ($30 \pm 2^\circ \text{C}$ and $75 \pm 5\%$ of relative humidity) and shelf life room temperature (27°C), following the Brazilian normative instruction (IN 04) [2]. Considering this protocol, aliquots of each vial must be analysed in specific period of storage (0, 3, 6, 9, 12, 18, 24 months), and submitted to analyses of density, microbial, pH and refraction index. Additionally, electrical conductivity measurements were added [2]. **Results:** The results of the first six months of storage were compared by analysis of variance and Tukey test. The density values considering glass and PET vials were, respectively: 0.86192 ± 0.00233 (T0); 0.85699 ± 0.00484 (T3); 0.86081 ± 0.01348 (T6) – glass vials, and 0.86063 ± 0.00162 (T0); 0.85809 ± 0.00490 (T3); 0.85728 ± 0.00147 (T6) – PET vials. Moreover, the packaging vial composition (glass or plastic) did not influence significantly ($p > 0.05$) the other parameters analyzed, such as: pH (around 6.0); refraction index (1.363) and microbiological assays (absence of *E. coli* and mold). Besides, no changes in color, macroscopic appearance or precipitates were observed, in the first sixth months of this study. **Conclusion:** This project will provide relevant information about the homeopathic medicines stability, bringing important results about the storage of homeopathic solutions in plastic and glass storage vials.

Keywords: Homeopathic solutions, *Arsenicum album*, stability, plastic and glass vials.

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A08 - Physico-chemical analysis of *Arsenicum album* and *Zincum metallicum* in different homeopathic potencies

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Introduction: Some theories attempt to explain the physical-chemical properties of homeopathic medicines, using different sensitive methodologies [1, 2]. **Objectives:** This work evaluated physico-chemical properties of *Zincum metallicum* and *Arsenicum album*, crushed in lactose. **Methodology:** The analyses were performed by low-field NMR spectrometer, operating at 23 MHz for the hydrogen nucleus [3], scanning electron microscopy (SEM) with and without backscattered electron detector (BSE). *Arsenicum album* (1- 3CH; 1-3DH) was submitted to Low-field NMR analyzes and these results were compared to non-dynamized samples (*Arsenicum album* diluted in lactose) and dynamized lactose (1- 3CH). *Zincum metallicum* (1-6DH) were also analyzed by SEM, NMR, and BSE. **Results:** The relaxation measurements performed by NMR spectrometer with lactose and Zn indicated free induction decay FIDs with two components, T1 and T2. This preliminary data detected differences in T₂ indicating greater mobility (or lower rigidity) of the population of hydrogens in this regime. No significant morphological differences among samples were detected by SEM and BSE. However, it was possible to detect lactose and metallic zinc crystals dispersed. **Conclusions:** The measurement of the relaxation time can elucidate the molecular mobility changes in homeopathic medicines. New experiments including X-ray analyses, polydispersity index, surface charge, by zeta potential, and mean diameter are in development to complement this study.

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The authors declare no conflict of interest.



A09 - Technical assessment of homeopathic pills impregnation in the Pharmacy University of the Universidade Federal Fluminense

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Introduction: The Farmácia Universitária da UFF (FAU) allows the handling and sale of homeopathic medicines, with high number of calls [1]. One of the most dosage forms performed in the laboratory of FAU and Brazil is the homeopathic pills [2]. The impregnation is a decisive factor for the quality of the product, and drying is one of its key steps [3]. **Objective:** the objective of this study is to evaluate the impregnation process currently used at FAU and propose methodologies for improving the efficiency of the preparation of homeopathic medicine. **Methodology:** the process was evaluated using dye impregnation instead of the active ingredient, respecting the Standard Operating Procedure used at FAU, and as an evaluator parameter, the weight difference before and after impregnation. **Results:** The found results showed that the current process, drying time of 30 minutes at room temperature, has 87.7% efficiency. As proposals for improvements were tested changes over time (10, 15 and 30 minutes) and drying temperature (room temperature, 40 ° C and 50 ° C). The effectiveness was assessed by difference in weight before and after the process and the analysis of the homogeneity of the samples by UV spectrophotometry. Among the arrangements tested, what showed the best weight difference was that who uses drying time of 15 minutes at 50 °C in an oven, with 97.9% efficiency. The analysis of homogeneity of the samples was considered a random parameter by variance analysis ANOVA. **Conclusion:** The suggested change will help to standardize the preparation of homeopathic pills as well as speeding the process.

Keywords: homeopathic pills, Farmácia Universitária UFF and drying

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A10 - Integrative and complementary practices in professional training health

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Introduction: Professional training, which attends the Brazilian Unified National Health System (SUS) needs at the perspective of comprehensive health care, on the basis of the purpose of National Policy for Integrative and Complementary Practices (NPICP), has faced great challenges. To sustainably implement these policies, both supplying and integrating teaching vitalist medical rationalities (MR) as well as integrative and complementary practices (ICPs) are necessary in their training. In this context, the pharmacist is an essential professional for the health service promotion. **Objectives:** This study aims to analyze the vitalist MR and ICPs teaching practice in the undergraduate and graduate education of public institutions (SEI) in Rio de Janeiro. **Methodology:** The methodology is qualitative and based on the collection of data from documentation survey, semi-structured interviews with coordinators, pupils and past pupils' focus groups of courses and subjects in MR vitalists and CPIs. **Results:** The number of 6 SEI were analyzed, and the following results observed: 46 subjects, 3 courses and 6 extension projects were offered, involving 11 health sub-areas. At the Pharmacia's sub-area, 12 subjects (22% of health sub-areas) were found. Homeopathy (37%) is the most discussed sub-topic among the CPI subjects supplied. Considering UFRJ Pharmacy College, 2 subjects at graduate and 3 at undergraduate course have been analyzed. **Conclusion:** The results show the metropolitan teaching vitalists and PICs are gaining more room in Universities, especially the sub-theme Homeopathy.

Keywords: homeopathy, ICPs, health, pharmacy, training

Conflict of Interests: "the authors declare that there is no conflict of interests".

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A11 - Homeopathy in sus unified health system: reflections on the practice homeopathic in primary health care in Brazil

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Introduction: Homeopathy is a therapeutic method based on a holistic view, where health is defined as a state of dynamic equilibrium covering the physical and psycho-emotional realities of individuals and their interactions and the external environment [1]. The National Policy on Integrative and Complementary Practices (PNPIC), approved by Ministry of Health through Ordinance No. 971, of May 3, 2006, represents a milestone in the implementation of homeopathic practice in primary health care (ABS) of the Unified Health System (SUS) [2,3,4]. **Objectives:** To analyze the development trajectory of homeopathic practices in Brazil. Show how homeopathy was inserted in the SUS. Discuss the current scenario homeopathy as integrative and complementary practice in ABS SUS. **Methodology:** This is a qualitative research, outlined from literature review and documentary analysis. Magazines and periodicals were selected on scientific tradition of sites such as the Virtual Health Library (BVS), Scientific Electronic Library (SciELO), the Latin American and Caribbean Literature in Health (LILACS), the portal of Higher Education Personnel Improvement Coordination (CAPES) . The documentary analysis was performed from the Law n°. 8.080/1990 (SUS) of Ordinance n° 971/2006 (PNPIC) and Ordinance n° 648/2006 (National Policy of Primary Care) [2,3,5]. **Results:** Despite advances homeopathy as integrative and complementary practice in ABS SUS, it was found that this practice is still new and little known among users of SUS, a fact that influences, among other things, the short supply of homeopathic services in ABS SUS, both medical and pharmaceutical [2,3]. **Conclusion:** There is a need for an extension of homeopathic services in ABS SUS, so that they incorporate health education measures with a more enlightening and informative approach to homeopathic procedures for the population. So, you can offer users of SUS medical and pharmaceutical practice whose design the humanistic dimension, such as homeopathy.

Key - words: Homeopathy, Integrative and Complementary Practices in Health, Health Unic System

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Conflict of interest: The authors declare that there is no conflict of interest.



A12 - Homeopathy in the treatment of metabolic syndrome of alcohol

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Introduction: Studies has shown that alcoholism is a complex phenomenon, even that alcohol is a long-dated known drug for humankind. Its effects and consequences have been harming the user, the family and society in massive and threatening numbers. The treatment can be divided in non-pharmacological and pharmacological [1]. Complementary Therapies, as homeopathy, can be applied to conventional alcoholism treatment, upon minimizing negative reactions, relieving symptoms from the illness itself and from the treatment [2]. **Goals:** Elucidate homeopathy's role in alcohol metabolic syndrome. Along with identifying homeopathic medicines applied on the treatment of the symptoms stated in patients. **Methodology/Development:** It is about a qualitative exploratory research, developed from a bibliographic review. **Results:** The homeopathy can be combined with pharmacological or non-pharmacological treatment. The homeopathic medicines used on alcoholism treatment must be managed in globules, tablets or powder state [3]. There were listed several homeopathic substances employed for alcoholism treatment, minimizing negative reactions, relieving symptoms from the illness itself and from the treatment. **Conclusion:** Many well-grounded scientific researches that have shown therapeutic effectiveness were found. The homeopathic isolated treatment or complementary to the traditional pharmacological treatment reduces the reactions caused by the allopathic medicines [4]. There's still a better illness acceptance, which reduces, somewhat, the possibilities of patients relapsing [5]. It was observed the need of promoting and stimulating studies focused on homeopathy.

Key-words: Homeopathy, alcoholism, complementary therapy

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A13 - The Production of organotherapics from a sheep

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Introduction: organotherapics are dinamized medicines usually used as complementary to homeopathic treatment, and eventually also prescribed by conventional prescribers. They are prepared from organs collected from healthy animals, usually pigs or sheeps. Matrices produced according to homeopathic pharmacotechnics available in the country, did not provide traceability or more information about its quality, and pharmacies had no answer to questions about the origin of the material. **Objective:** to produce organotherapics that are traceable and have good quality, in decimal, centesimal and fifty-millesimal scales and methods, in order to contribute to effective organotherapics medicines, for treatment of human and veterinary patients. **Methodology:** starting from a healthy sheep, in a legal slaughter house, several pieces of tissues were separated in etanol 70% and latter triturated and dynamized following the homeopathic pharmacotechnics in centesimal and fifty-milesimal, and also in decimal scale when the ammount of material was enough. **Results:** details about the collection of parts were presented and discussed, how the trituration was performed. The way the organotherapics have been prescribed and the reason for the need of the various scales and methods. The list of available organotherapic parts was presented, as well as some formulations already prepared from the mixing of the triturations, where different parts of compositions were used. The non-pharmacopeical preparation of some medicines were also described and discussed, as formulations in fifty-milesimais. **Conclusions:** through the sacrifice of a sheep, 70 different organs, parts of organs and some compositions were obtained. This ensure us to offer pharmacies, homeopathic matrixes of organotherapics with information that ensures their quality, comprehensive information and traceability. Several testimonials on clinical results indicate satisfactory quality, although the results have not been scientifically studied.

Key words: organotherapics, dinamized medicines, homeopathic pharmacotechnics.

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The authors state that this study did not receive funding. But there is conflict of interest, since they work in the laboratory that produced and markets organotherapics.



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A14 - Monitoring and determination of shelf life of the stock of homeopathic matrices (sources)

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Introduction: Homeopathic matrices (sources) are the stock for preparation of new derived forms, used for storage or dispensing of homeopathic medicines [1, 2, 3]. It is responsibility of the pharmacist to set criteria for monitoring the quality of the stocks, to ensure the quality of these preparations, as well as their shelf life [1, 2]. **Objectives:** to monitor the quality of acquired homeopathic matrixes, or those obtained from the pharmacies or homeopathic laboratories themselves, as well as determine the validity of homeopathic matrices, in order to ensure the quality of dispensed homeopathic medicines. **Methodology:** the analysis of legislation and references available on the subject were performed. Results of microbiological analyzes on stocks of several pharmacies were presented [3, 4]. **Results:** microbiological criteria for evaluation from different references were presented and discussed, as well as population and sampling criteria. It was proposed the implementation of microbiological tests from "pool" of matrices. It was also proposed the criteria for population acceptance, limits, non-compliance and records that must be made and kept in laboratories. **Conclusion:** monitoring, management of the stock and proper treatment of the results give subsidies for the pharmacists may determine the shelf life of the matrices.

Key words: homeopathic matrices (sources), shelf life, homeopathic pharmacotechnics, quality guarantee.

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A15 -The status of homeopathy in the teaching Hospitals Clementino Fraga Filho and Instituto de Puericultura e Pediatria Médica of the Federal University of Rio de Janeiro.

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Introduction: The Federal University of Rio de Janeiro (UFRJ) maintains two teaching hospitals of great importance for physician and pharmacy students: Hospital Clementino Fraga Filho (HUCFF) and Instituto de Puericultura e Pediatria Martagão Gesteira (IPPMG). Both hospitals are involved with the treatment of important and different diseases from patients that belong to Brazilian Public Health Program (SUS). In the last years, we can detect an increase of interest of homeopathic therapy, due to the inclusion of homeopathy in SUS, managed by the "National Policy for Integrative and Complementary Practices (PNPIC)" [1]. **Objective:** The present study evaluated the opinion of physicians and patients in both hospitals about Homeopathy. **Methods:** The evaluation was conducted through specific surveys [2], developed and tested considering a sample of 285 individuals. **Results:** After the collection and statistic treatment of the data, the results show that, in both hospitals, although there is no homeopathic clinic, there is a small number of physicians who has previously prescribed homeopathic medicines, as well as an insignificant number of patients that previously used homeopathy. A vast lack of knowledge about homeopathy was detected in both groups (physicians and patients), and it was possible to registered a contradiction between doctors that criticized the homeopathic treatment and patients who desire to make use of homeopathic medicines. **Conclusion:** These results lead us to conclude the importance to include the homeopathic principles and concepts in the curriculum of physicians and pharmacists in order to change UFRJ scenario [3].

Keywords: Homeopathy, Teaching Hospitals, PNPIC.

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A16 - Use of homeopathy by Brazilian pet guardians

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The use of homeopathy in Brazilian veterinary clinics is yet anecdotal and there is at present no study regarding the use of complementary medicine by Brazilian pet guardians. The objective of this study was to obtain the first survey of use of homeopathy and other complementary medicine by pet guardians in Brazil. We opted to perform an online survey with 10 questions (from survio.com) since it permits to obtain data from several Brazilian states. Links for the survey was placed in facebook and shared in several communities of pet guardians. After two weeks, 92 answers were obtained. Approximately 47% of pet owners uses homeopathy for treatment of allergies and skin diseases, 35% of them due to unsuccessful results from traditional medicine. The majority (74%) use formulations prescribed by a homeopathic veterinary, and, the others buy commercial ones. Only 14% of the pet guardians do not believe in homeopathy. The vast majority (84%) of those who answered that do not use homeopathy would use it if the clinician indicates. Other complementary medicines are also used by 48% of pet guardians, being florals the main choice (79%), followed by acupuncture. Our preliminary results suggests that there is a demand for homeopathic veterinarians in Brazil.

Keywords: homeopathy, veterinary, Brazilian pet guardians.



A17 - Antitumoral activity of dynamized and non-dynamized *Viscum album* samples: an *in vitro* assay

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Introduction: *Viscum album* is widely used as an alternative treatment for cancer and other diseases [1]. It is possible to prepare *Viscum album* (VA) extracts following different methodologies and different solvents, such as, ethanol (homeopathic procedure) and water (anthroposophic procedure). **Aims:** This study aimed to verify the efficacy of ethanol and water extracts of *Viscum album* and their respective dynamized solutions (3DH) in tumoral cells. **Methodology:** The cytotoxic effects of anthroposophic (ISCADOR A – IA; ISCADOR P – IP; ISCADOR M –IM; ISCADOR U – IU; ISCADOR Qu - IQu) and homeopathic *Viscum album* preparations (VA) were evaluated in K562 cells, and their respectively dynamized samples 3DH [2,3]. Cell viability was determined by Trypan blue and MTT assays after 0 and 24h of treatment [4]. Cell morphology was also analyzed by optical microscopy [5]. Statistical comparisons were performed by one-way ANOVA. **Results:** All extract samples tested were able to induce a drastic cellular destruction after 24h of treatment, in a dose-dependent manner. However, IP extract treatment presented lower cytotoxicity, inducing a 75% of cell death in comparison with 90% induced by other samples ($p<0.05$). Besides, homeopathic preparation originated the best results compared to anthroposophic samples, despite of the absence of viscolectins. Morphological analyses indicated necrosis death. The results indicate that there is no statistically significant difference between the dynamized samples and their respective controls. **Conclusion:** The results showed that anthroposophic and homeopathic VA samples presented an anticancer activity, in a dose dependent manner whereas their dynamized solutions (3DH) were not cytotoxic to K562 cells.

Key Words: *Viscum album*, dynamized, anthroposophic and homeopathic

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A18 - Practical need for pharmaceutical care to patients using Homeopathy

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Introduction: Homeopathic treatment need special cares to obtain effective results. The incorrectly use of medicines, as well the self-medication may result in a inefficient treatment even and a risk to the patient health [1]. The activity of homeopathic pharmacist is developed through the practice of pharmaceutical care, since it resembles the principles established by homeopathy, because they both need a individual treatment, considering specific aspects of patient [2]. This way, the pharmacist is the fittest professional to orient the patient about the treatment, the correctly use and cares with medicines, always looking for your needs, ensuring the rational use of medicines [1]. **Objective:** Assess the need of the practice of pharmaceutical care in patients during homeopathic treatment. **Metodology:** Were interviewed 30 patients through a semi-structured questionnaire in the period from January to April 2015 at in a private masterful pharmacy in Salvador/BA. **Results:** Of the 30 patients interviewed, about the correct use of medicines, 40% were oriented by pharmacist; was obtained similar percentage of 30% of the guidance given by the pharmacist and too by doctor/pharmacist about the expected effects caused by medicines; and for the care with medicines, greater guidance was given by the pharmacist, with 43.33%. **Conclusion:** Considering the results, it perceives the need of the practice of pharmaceutical care to patients using homeopathy to ensure the correct and rational use of medicines. It is necessary, therefore, greater involvement of the pharmacist in the care process as it is a qualified professional to answer doubts presented by the patient, complementing the activity of the homeopathic physician.

Key-words: Pharmaceutic, homeopathy, homeopathic medicine, pharmaceutical care

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A19 - The importance of implementing the discipline Homeopathy in the undergraduate curricula from the Faculty of Health Sciences of the University of Brasilia

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Introduction: Homeopathy is a medical practice which considers the person as a whole and thus focuses on the patient, rather than on the disease. Homeopathy is currently part of integrative practices available at the Brazilian Universal Health Care System (“Sistema Único de Saúde – SUS”) [1,2]. Nonetheless, the discipline “Homeopathy” is absent from the curricula of the courses of Health Sciences School of the University of Brasilia (FS/UnB). **Objectives:** To assess the undergraduate students' interest in Homeopathy. **Methods:** A structured questionnaire with 7 questions was applied to 230 undergraduate students from different courses (Pharmacy, Dentistry, Nutrition, Nursing and Public Health), who were enrolled in Applied Pharmacognosy classes. Results: 95% of respondents considered the knowledge of homeopathic practice by health professionals necessary; 87% of respondents thought that the discipline Homeopathy should be part of the curriculum of the courses, and 65% believed that the discipline should be offered as optional. Of the 230 students surveyed, 64% were from Pharmacy; 7% from Dentistry; 5% from Nutrition; 18% from Nursing and 6% from Public Health Courses; 98% of them had no previously taken the Homeopathy discipline. **Conclusion:** The results show the importance of implementing the homeopathy discipline in the curricula of FS/UNB. It is believed that this knowledge will contribute to the education of more capable health care professionals, who will be better prepared to meet the demands of Society as a whole.

Keywords: Homeopathy discipline; Pharmacy Students; Health Sciences Faculty.

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A20 - Cardiac histopathology of mice infected by *Toxoplasma gondii* and treated with *Lycopodium clavatum*

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Toxoplasmosis is a zoonosis worldwide distributed; its etiologic agent is one of the most studied protozoa because of its importance on the medical and veterinary field [1]. **Aim:** Assess the histopathological features on myocardium of mice that were experimentally infected with twenty tissue cysts of *T. gondii* from a ME-49 strain (genotype II). **Methodology:** The animals were subdivided into 4 groups: non- infected and non-treated control; infected and treated with alcohol (GAL); infected and treated with *Lycopodium clavatum* 200dH (Lc200) for 72h before infection; and infected and treated with Lc200 48h before and after infection for 16 hours at the time 48, 96 and 144 hours. They received the medication orally diluted in water (1mL/100mL) ad libitum. We assessed and classified inflammatory infiltrates on myocardium, according to their intensity and distribution in 20 fields; tissue tropism of the parasite (cysts) and deposition of total collagen, type I and II by Picrosirius red staining. **Results:** On the 7th, 15th and 60th day of infection, the groups treated with *L. clavatum* had a significantly higher number of inflammatory infiltrates in the heart slides ($p>0,05$). After 60 days, the GAL group showed a great number of inflammatory diffuse cells in the field and interfibrillar edema. The percentage of collagen fibers were higher in animals treated with Lc200, in comparison to the control group ($p=0.001$). **Conclusion:** The treatment schedule/potency of Lc200 might have been inadequate, resulting in the aggravation of myocarditis caused by the protozoa, although it controlled the circulating and tissue parasite load.

Keywords: *Toxoplasma gondii*, *Lycopodium clavatum*, experimental infection

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A21 - Highly diluted natural complex (M1) modulates metastatic phenotype of murine melanoma cells *in vitro*

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Background: Melanoma metastasis happens when tumor cells start expressing n-cadherin, activating PI3K/AKT and MEK/ERK pathways, producing and activating matrix metalloproteases (MMPs) thus cells can degrade extracellular matrix and invade. *In vivo* studies have shown that M1 treatment reduced experimental lung metastasis formation by murine melanoma B16F10 cells [1] and also decreased solid B16F10 tumor growth through angiogenesis decrease, and intratumoral cell death enhancement [2]. In addition previous *in vitro* study showed that M1 reduced B16F10 matrigel invasion [1]. **Aims:** Elucidate *in vitro* changes in B16F10 cells accomplished by M1 treatment that led to tumor and metastasis reduction *in vivo*. **Methodology:** B16F10 cells were cultured in DMEM with 10% FBS and treated with M1 [3] or its vehicle (control) (20% v/v) for 96h. Migration capacity was accessed by: a) pre-treated cells migration trough 8µm pore polycarbonate membrane, detected by crystal violet staining; b) imaging migration to close induced scratch. MMPs expression was measured using real time PCR. N-cadherin quantification was determined by flow cytometry. **Results:** Cell migration was reduced by at least 24% after M1 treatment compared to control using both strategies. MMPs 2 and 9 expression was reduced by 40 and 54%, respectively. N-cadherin labeling was not altered by M1 treatment. **Conclusion:** B16F10 metastatic phenotype decrease, such as invasiveness properties, could be explained by MMPs reduced expression. However it is not dependent on n-cadherin modulation. We are now investigating if MMPs activity is altered in addition to its expression and also if M1 modulates PI3K/AKT and MEK/ERK pathways activation.

Key-words: high dilution, melanoma, matrix metalloprotease, migration, n-cadherin.

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Authors declare that there is no conflict of interest.

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A22 - *Atropa belladonna* 200CH “*in vitro*” treatment increases intracellular reactive oxygen species and initial apoptosis of murine melanoma B16F10 cells.

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Introduction: Melanoma arises from malignant transformation of melanocytes, where cells grow uncontrolled and present invasive phenotype. Immune cells are lured to work in its favor, hardening if not preventing it to be detected and eliminated [1]. Existing treatments are little effective when disease is advanced, and cause several side effects. Highly diluted natural compounds can enhance the immune system with no side effects, being an option to cancer treatment. **Aims:** This study aims to evaluate *Atropa belladonna* 200CH effects on B16F10 murine melanoma cell line [2]. **Methods:** Cells were maintained in 10% fetal bovine serum supplemented Dulbecco's Modified Eagle Medium containing antibiotics, and kept at 37° C, 5 % CO₂. Cells were treated with 20% (v/v) Bell 200CH. 1% (v/v) was added every day up to 72h. Water was used as control. Colorimetric assays were performed to detect mitochondrial activity (MTT)[3] , and neutral red (NR) intracellular retention [4]. By flow cytometry DCFH-DA[5] sensor to reactive oxygen species (ROS) and annexinV/7AAD (kit - BD) positive cells were verified. All data were submitted to statistics. **Results and discussion:** Bell 200CH treated B16F10 cells showed no significant differences in mitochondrial activity or NR retention. Intracellular ROS concentration and initial apoptosis was significantly increased compared to control. Previous studies demonstrated that Bell 200CH significantly reduces B16F10 proliferation, and increases melanin production. Melanogenesis generates reactive species including ROS [5], and this increase may lead to severe consequences including cell death. Thus explaining our results. **Conclusions:** *Atropa belladonna* 200CH seems to be a promising candidate to better treat melanoma patients.

Key words: melanoma, high dilution, *Atropa belladonna* 200CH, apoptosis, ROS.

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Authors declare that there is no conflict of interest. Financial support: CAPES, CNPq, Fundação Araucária. We thank Homeopatia Farmácia de Manipulação for kindly donating all medicine. We had full access to all the data from this study and we assume full responsibility for the integrity and accuracy of the data analysis.



A23 - Evaluation of co-cultured of macrophages and *Leishmania* (*L.*) *amazonensis* after treatment with homeopathic preparations

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Introduction: *Leishmaniasis* is a neglected disease in several regions of the world that affects the skin, it is related to the cutaneous or subcutaneous forms, or even more severe visceral ways [1]. Our research previously carried observed immunomodulatory effect of homeopathic medicines in cutaneous leishmaniasis induced by *Leishmania* (*L.*) *amazonensis* in mice and increased free amastigote form, not internalized by macrophage [2-3]. **Objectives:** This study aims to evaluate the immunomodulatory mechanisms in vitro macrophage in co-culture with the parasite. **Methods:** The morpho-functional features of RAW macrophages co-cultured with *Leishmania* (*L.*) *amazonensis* after 48 hours treatment with 20% of *Thymulin* 5 cH, 6 cH and 7 cH or *Antimonium crudum* 6 cH, 30 cH and 200 cH. The spreading was analyzed by the breadth and area of each macrophage, photographed in a NIKON Eclipse 200-Coolpix system and measured by Metamorph® Image analysis software. The phagocytosis was analyzed by the percentage of amastigotes incorporated into the phagocyte vacuoles. Additionally, were performed production of metabolites such as hydrogen peroxide and nitric oxide. ANOVA and Tuckey Krammer were used as statistical methods. **Results:** A marked increase of macrophage spreading (considering breadth and area) was seen in *Thymulin* 7 cH treated cells ($p \leq 0.01$), as in *Antimonium crudum* 30 cH ($p=0.05$) and 200 cH ($p=0.001$) treated cells. Only *Antimonium crudum* 200cH presented increase in phagocytosis index ($p=0.001$). The dosages of nitric oxide and hydrogen peroxide showed no changes between groups. **Conclusions:** The in vitro assay corroborates the findings obtained from in vivo studies.

Keywords: homeopathy, *Leishmania* (*L.*) *amazonensis*, *Thymulin*, *Antimonium crudum*.

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Conflict of interest: The authors have no interest conflict.



A24 - Effect of *Ignatia amara* on anxiety in mice model

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Introduction: in homeopathic medicine *Ignatia amara* presents an extensive pathogenesis, and it can be used, among other illnesses, to control anxiety symptoms. Anxiety was the pathology chosen due to its growing incidence all over the world. **Objective:** the aim of this study is to evaluate the effects of the homeopathic remedy *Ignatia amara* in an anxiety framework. **Methodology:** anxiety test was performed with methodology already established, using Swiss mice with previous social isolation as in vivo model. The methodology employed for anxiety evaluation was an open field test [1-3]. Performing a blind, randomized experiment, 18 animals eight-week-old, Swiss, male mice were divided into control group, control treated hydroalcoholic 30% (placebo) and *Ignatia amara* 30cH/55 consecutive days/diluted in water ad libitum (7µL/mL). **Results:** In the first, all three groups had aggressiveness, with scratches and bruised. After 55 days of study, the control and placebo groups still maintained their initial aggressiveness. However, the *Ignatia amara* group, after two weeks of treatment had a significantly reduced of the aggressiveness becoming more peaceful. For the treated group, the move between one point and another, the vertical lift and smell the environment is not changed. However, not locomotor movements (defecation and self-cleaning) had a significant improvement in the 7 weeks of study. **Conclusion:** we can conclude that this specific remedy was efficient in the test performed, presented therapeutically effects in some anxiety symptoms.

Key words: *Ignatia amara*. Anxiety. Open field test.

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A25 - Protective effect of ultra-diluted remedies against mother tincture in cell culture

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Introduction: homeopathy is range study and well documented in cellular models [1,2]. *Thuya occidentalis* is used in various conditions, including tumors. *Apis mellifica* has application in skin disorders.

Objective: Our purpose was to evaluate the bioactivity of homeopathy medicines (HDs) in two cell lines (L929 and B16F0) by measuring the protection against further damage with the same mother tincture (MT) of HDs. **Methodology:** cells were seeded in 96 well plate (5×10^3 cells/well), with a media containing 10% of *Apis* or *Thuya* 30CH and kept in incubation for 96h, with replacement of media/HDs each 48h. After this time, MT (stressor agent) was applied, followed by incubation for 24 hours. MTT colorimetric assay was used to determine cell viability. Comparisons were performed using ANOVA ($p < 0.05$). **Results:** MT is a stressor agent, reducing cell viability. In contrast, seed cells with media-HD do not change cell viability. Nevertheless, after growing in a medium containing MT in a low dose (HD), cell response against damage with the same MT is different, such as a type of adaptive response [3]. Furthermore, HDs-bioactivity/cell-line are correlated, it means, different cell lines showed different sensitivities to the same stressor agent. *Apis* increased viability in fibroblast cells (L929) after contact with MT, indicating protective effect. Opposed, *Thuya* showed biological activity against melanoma cells (B16F0). These results are consistent with homeopathic theory and reports in the literature [1,2,4,5]. **Conclusion:** These findings highlight the specificity of homeopathic medicines and demonstrate biological activity of ultra-diluted remedies in cell cultures.

Key words: Homeopathy. *Apis mellifica*. *Thuya occidentalis*. Isopathy.

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Statement of conflict of interest: Authors declares there is no conflict of interest.



A26- Raman spectroscopic studies of *Thuya occidentalis* and *Arnica montana* and their potencies.

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Introduction: in the last years, different models were used in study of the pharmacological properties of high-dilutions with relevant results [1,2]. However, a method that can elucidate the exact chemical constitution and the action mechanisms involved in a homeopathic medicine remains a challenge [3,4]. The spectroscopy RAMAN is a technique which allows measure the energy involved with arrangement of chemical structures and the interaction of this structures with diluents [3,4]. **Objective:** monitor changes in arrangements of chemical structures and their own interaction and interaction with diluents, of mother tincture (MT) and high-dilutions of two compounds (*Arnica montana* and *Thuya officinalis*) using spectroscopy RAMAN. **Methodology:** The commercially available samples of *Thuya officinalis* and *Arnica montana* were used in analyses and in centesimal dilutions (1, 6, 12, 30 and 200), all dilutions are prepared in 30% ethanol (EtOH30). These samples were analyzed in Laser Raman microspectrometry. Every analysis was compared to EtOH30 profile. **Results:** The equipment showed specificity in measured of two mother tincture, differing the two profile in 82%. The comparison between mother tincture and dilutions showed a completely different profile. Thus, the potencies were compared to EtOH30. In the analysis of Arnica, the potencies of 1 and 6cH showed a difference in intensity but the same Raman spectra of EtOH30. In the Thuya analysis, a larger difference in the intensity was showed in a 1cH potency. However, the other potencies of Thuya showed just a discrete variance in intensity spectra. **Conclusion:** these results illustrate the ability of RAMAN spectroscopy to distinguish two different compounds (*Thuya occidentalis* and *Arnica montana*), but there was just a little difference between potencies intensity energy and ethanol 30%. Perhaps, this result is related to equipment robustness. This is why we recommend new experiments in more sensitive equipment.

Key words: RAMAN. Vibrational spectroscopy. Chemical structure. Ultra dilution

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A27 - Evaluation of *Staphylococcus aureus* Biotherapeutic's effects in bacterial cultures from the genus *Staphylococcus* and *Micrococcus*

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Introduction: Biotherapies are homeopathic medicines prepared from organic products that are chemically undefined [1]. There are several classes of biotherapies and, among these, there are some called “Simple Biotherapies” that are prepared from pure microbial cultures [2]. **Objective:** This study aimed to evaluate the influence of a biotherapeutic prepared from *Staphylococcus aureus* in bacterial cultures from the same genus and from the genus *Micrococcus*. **Method:** The medicine has been prepared from bacterial culture, following the 0,5 nephelometric Mc Farland scale, using water as vehicle [3,4]. The potencies of 5CH, 6CH and 15CH were applied in *M. luteus*, *S. aureus* and *S. xylosus* cultures, plated on Muller-Hinton agar. **Results:** In the analyses of the plates with the above-mentioned microorganisms, there was no inhibition or stimulation. **Conclusion:** Considering the mentioned results, new experiments are going to be tested, in order to verify a possible direct action of the medicine in the microorganisms’ growth.

Key words: Biotherapy, *Staphylococcus*, microbial cultures.

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Conflict of interest: authors declare there is no conflict of interest



A28 - *In vitro* effect of *Candida albicans* nosode in MA104 cells

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Introduction: Our previous *in vitro* studies indicate that *Candida albicans* nosode modifies important cellular and biochemical aspects of MA104 epithelium cells [1]. **Objectives:** This study aims to understand the mechanisms involved with these cellular and metabolic changes. **Methodology:** The *Candida albicans* nosode was prepared by one part of *C. albicans* infective yeast suspension (10^8 cell/mL) diluted in 9 parts of sterile distilled water. This sample was submitted to 100 mechanical succussions until reaching the 12x and the 30x [1,2]. MA104 cells (5×10^4 /mL) were grown in DMEM supplemented with fetal calf serum, and stimulated with different aliquots of both potencies, during 48 and 96 hours. After respective treatment, respiratory function was evaluated by high resolution respirometry using oxidative phosphorylation inhibitors: oligomycin A (ATP synthase inhibitor); FCCP (protons ionophore - dissociating the oxygen consumption from ATP synthesis) and KCN (inhibitor of cytochrome C oxidase) [3]. All experimental conditions were compared to their respective controls (dynamized and non-dynamized solvents). **Results:** we registered a reduction of 5% in the rate of O₂ consumption and a decrease around 15% in routine respiration, when MA104 was treated during 96 hours with *C. albicans* 12x, as well as dynamized water (30x). Besides, pre-treatment of MA104 cells with *C. albicans* 12x and 30x, for 18 days, induced a decrease around 20% of yeast adhesion rate ($p < 0.05$). **Conclusion:** Further studies are ongoing in order to understand the mechanisms involved with adhesion process as well as mitochondrial functions.

Keywords: *Candida albicans*, yeasts adhesion rate, nosodes, *in vitro* models.

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The authors declare that there are no conflicts of interests.



A29 - Development and evaluation of *Leishmania infantum* biotherapeutic in BALB-c mice: a pilot study

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Introduction: Considering the difficulties of leishmaniasis treatments [1] and our previous studies with biotherapeutic medicines [2,3] a new biotherapy (*Leishmania infantum* 30DH - BioLi30DH) was developed and its effectiveness was evaluated in *Leishmania infantum* murine experimental infection. **Methodology:** 20 BALB/c mice (6-8 weeks old) were blind treated orally with BioLi30DH and *Antimonium crudum* 30DH, and divided in five Groups as following: G1 - infected and untreated; G2 - pre-treated with BioLi30DH for 21 days and infected; G3 - infected and post-treated with BioLi30DH; G4 - infected and post-treated with *Antimonium crudum* 30DH. An inoculum containing 3.5×10^7 promastigotes was injected, intraperitoneally, after 21 days of the beginning of experiment. The post-treatments were performed after 28 days of infection and the animals remained under treatment for 21 days. All mice were submitted to euthanasia (CEUA 066/14), by the end of post-infection. **Results:** Liver and spleen were prepared by histologic techniques, and presented: liver with moderate to severe disruption, periportal chronic hepatitis and chronic cholangitis (G1); chronic and discreet periportal hepatitis (G2, G3, G4); diffuse hydropic degeneration (G3), and congestion and neutrophilic inflammation (G4). The spleen showed moderate to severe disruption (G1); white pulp hyperplasia (G1-G4); megakaryocytes and macrophages proliferation (G2, G3, G4); discreet (G3) and moderate disruption (G4). Animals of the same group presented similar morphological changes and these results were not submitted to statistical analyses. However, these structural aspects suggested activation of animal's defense cells. **Conclusion:** The influence of homeopathic treatments in the prevention and treatment of leishmaniasis needs further investigation.

Key words: *Leishmania infantum*, *Antimonium crudum*, visceral leishmaniasis, biotherapeutic.

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Interest conflicts: none. **Financial support:** CAPES



A30 - *In vitro* effects of *Leishmania infantum* biotherapeutic on nitric oxide production by RAW 264.7 macrophages

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Nitric oxide (NO) is the main oxidizing agent generated in the activation of macrophages and is also responsible for eliminating intracellular amastigotes of *Leishmania*[1]. This study aims to evaluate the effects of biotherapeutic of *Leishmania infantum* 30DH (BioLi30DH) in NO production by RAW 264.7 macrophages infected with *L. infantum*. For this purpose, a suspension containing promastigotes forms of *L. infantum* (5×10^6 cels/mL) was ultradiluted at a ratio of 1/10 in sterile phosphate buffer saline (1DH to 6DH), followed by sterile distilled water (7DH to 30DH), yielding BioLi30DH. RAW 264.7 macrophages were seeded into 24 well plates (24h, 37°C) and infected with promastigotes forms of *L. infantum* (10 parasites/macrophage), incubated further 4h, and then subjected to the following post-treatment schemes: BioLi30DH; dynamized (30DH) and non-dynamized water (solvent controls); and *Antimonium crudum* 30DH (reference medicine). All groups were compared to untreated and/or uninfected macrophages, considering 24 and 48h of post-infection times. Alternatively, the macrophages were pre-treated with BioLi30DH 24h before infection and were submitted to the same experimental conditions. After 24 and 48h of post-infection, 100µL of supernatants were collected and NO concentration was determined by the Griess reaction, at 570 nm [2]. The results showed that BioLi30DH treatment were able to increase about 19% the NO production by macrophages in all systems tested when compared with untreated infected cells, only considering 24h of infection. The present results suggest that the BioLi30DH was able to elicit NO production *in vitro*. However, further investigation will be necessary in order to evaluate BioLi30DH leishmanicidal potential.

Key words: *Leishmania infantum*, macrophages infection, nitric oxide, biotherapeutic.

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I, Ana Paula Bacellar Cajueiro, had full access to all data from this study, and I take full responsibility for the integrity and accuracy of the data analysis.



A31 - Treatment with *Zincum metallicum* increase survival in mice infected by *Trypanosoma cruzi*

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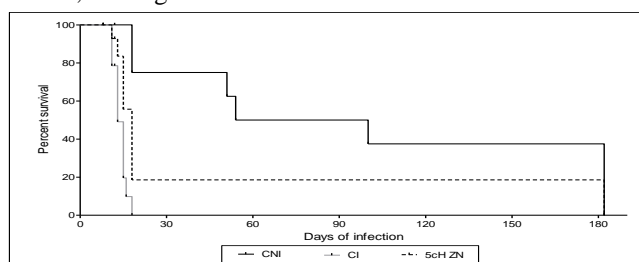
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Zinc is important for the regulation and operation of various cellular processes [1]. **Aim:** Evaluate the histology of heart and survival of the mice infected by *Trypanosoma cruzi* and treated with *Zincum metallicum* 5cH. **Methods:** In a blind, controlled, randomized assay, 27 swiss male mice, 56 days-old, were divided into groups: CNI- uninfected and untreated; CI- infected and untreated; 5cHZN- infected and treated with *Zincum metallicum* 5cH. The animals were infected with 1.400 blood trypomastigotes of *T. cruzi*-Ystrain [2]. The medicines were prepared according to Brazilian Homeopathic Pharmacopeia (ref), and offered ad libitum (48 hours before and 48, 56 and 56 hours after infection)[3]. The collected hearts were fixed in 4% paraformaldehyde during 24 hours and then processed for paraffin embedding. Were made semi-serial cuts of 5 micrometers thick processed by hematoxylin-eosin staining technique (HE) .The cuts were observed in a microscope Olympus BX41(Tokyo Japan). The survival was computed During the experiment. **Results:** Treatment with 5cHZN showed higher survival than infection control (CI) (p <0.05) (Figure 1). This is related to the histology of the heart, which showed lower number of nests in the 8th and 12th day, and lower number of amastigotes per nest on the 12th day of infection than CI (P <0.05). **Conclusion:** This result is very important since inflammation in the organ will be consequently decreased and heart is one of the most important organ considering Chagas disease pathogenesis. This fact is probably due to modulation triggered by the treatment used here, leading to increased survival.



Keywords: High diluted medication, *Trypanosoma cruzi*, *Zincum metallicum*, Zinc.

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Conflict of Interests: "the authors declare that there is no conflict of interests".

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A32 - *Zincum metallicum* modulates $\text{INF}\gamma$ and $\text{TNF}\alpha$ increasing the survival in *Trypanosoma cruzi* infection.

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Zinc acts on all cellular signaling levels becoming essential for cell proliferative, with crucial role in regulation of cells in immune system [1]. **Aim:** Evaluate the effect of *Zincum metallicum* 5cH in immune response and survival of mice infected by *Trypanosoma cruzi*. **Methods:** In a blind, controlled and randomized assay, 27 swiss male mice, 56 days-old, were divided into groups: CNI -uninfected and untreated; CI -infected and untreated; 5cHZN -infected and treated with *Zincum metallicum*. Animals were infected with 1.400 blood trypomastigotes of *T. cruzi*-Y strain [2]. The medicines were prepared according to Brazilian Homeopathic Pharmacopeia [3], and offered ad libitum (48 hours before and 48, 56 and 56 hours after infection, until 9th day of infection). The cytokines $\text{INF}\gamma$ and $\text{TNF}\alpha$ were measured in serum using flow cytometry (Luminex-Invitrogen), on T0 (before infection), T8 and T12 (8th and 12th days after infection). The survival was computed during the experiment. **Results:** Treatment with 5cHZn showed higher survival in relation to infection control (CI) ($p < 0.05$), which may be related to modulation of the cytokine production (Figure 1): 5cHZn has a lower concentration of $\text{INF}\gamma$ on the 8th and 12th, and lower concentration of $\text{TNF}\alpha$ on 12th day of infection compared to CI ($p < 0.05$). This control is confirmed since treated groups displayed values similar to CNI on 12th day of infection, different CI ($p < 0.05$). **Conclusion:** *Zincum metallicum* modulates $\text{TNF}\alpha$ and $\text{INF}\gamma$ increasing survival of mice infected by *T. cruzi*.

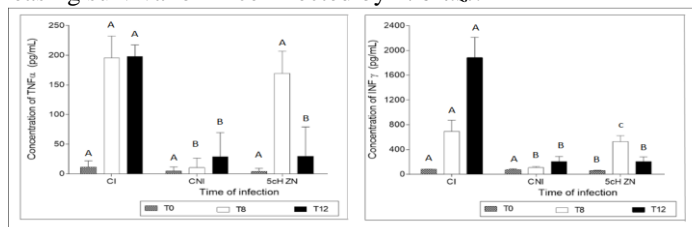


Figure. Concentration of cytokines groups for the group at each time. T0 (before infection), T8 (the 8th day of infection) and T12th (day 12 of infection). Uninfected control (CNI), Infected Control (CI), treatment with zinc (5cH ZN). Statistics: different letters in a same time of infection, corresponds to a significant difference ($p < 0.05$), Mann Whitney test.

Keywords: High diluted medication, *Trypanosoma cruzi*, *Zincum metallicum*, Zinc.

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Conflict of Interests: “the authors declare that there is no conflict of interests”.

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A33 - Influence of cytokine IFN- γ and TNF- α in the reduction of *Toxoplasma gondii* cysts in mice treated with 200dH biotherapeutic and infected by protozoan

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Introduction: An effective remedy, with no side effects and low cost to prevent/reduce damages in toxoplasmosis, is essential [1]. **Aim:** Evaluate the relation of IFN- γ /TNF- α and the formation of *Toxoplasma* cysts in the brain of mice infected and treated with 200dH T. *gondii*-biotherapeutic. **Methods:** Under test blind, controlled, randomized 45 male Swiss mice, 60 days-old, were divided into groups according to the treatment: GCN- uninfected and untreated control group; GCinf – infected control group pretreated with 7% grain alcohol; BIOT-TG200 – pretreated with 200dH T. *gondii*-biotherapeutic. The biotherapeutic was produced [2] with macerated mice brain (20 cysts *T. gondii*/100 μ L). The medicine was offered diluted in water (1mL/100mL) ad libitum during 3 days. The animals were infected (ME49 strain 20-T *gondii* cysts), orally. Thirty and sixty days after infection the number of cysts in the brain was counted and serum IFN- γ and TNF- α was dosed. Statistical comparison was performed (Mann-Whitney and T tests, 5% significance). **Results:** The number of cysts on BIOT-TG200 group was reduced on 30 (p<0.01) and 60 days (p<0.05) after infection (dai) compared to GCinf. At the same time was observed increased levels of IFN- γ in the BIOT-TG200 (p<0.01). TNF- α displayed higher concentration on 30 dai in BIOT-TG200 when compared to GCinf (p <0.05). **Conclusion:** The control of the cyst formation in the brain of mice infected with *T. gondii* and treated with the BIOT-TG200 seems to involve the up regulation of IFN- γ and TNF- α , since increased levels of this cytokine could be related to the reduction of cerebral parasitism.

Keywords: Biotherapy, *Toxoplasma gondii*, cytokine, mice.

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"We had full access to all the data from this study and we assume full responsibility for the integrity and accuracy of the data analysis."



A34 - Effect of the ethylic alcohol dinamized (6 and 30Ch) in mice infected by *Trypanosoma cruzi*

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Introduction: Some studies suggest that the slight consumption of alcohol appears to be harmless and even beneficial [1,2,3]. **Aim:** Related the IL-10 cytokine with survival in mice infected by *T. cruzi*. **Methods:** In a blind, randomized and controlled, Swiss mice, eight weeks, infected IP (1400 trypomastigotes, Y-strain of *Trypanosoma cruzi*) were distributed: group with 12 animals non-infected (CNI) and 3 groups infected (17 animals/group): 17 CI – animals infected and non-treated; Et6cH – animals treated with grain alcohol diluted and dinamized in potency 6cH (1:1012), Et30cH – animals treated with grain alcohol diluted and dinamized in potency 30cH (1:1060). Treatment 48 hours before and after infection, followed by 56/56 hours until 9th day of infection, for 16 uninterrupted hours. Parameters: computed survival and mortality for 90 days after infection. Dosage of IL-10 (pg/mL) – in the serum of 3-4 animals/groups, performed at times T0 (before infection), T8 (8th day after infection), and T12 (12th day of infection), kit Mouse Cytokine 20-Plex Panel Magnetic-Invitrogen, USA). Approved by the Institutional Animal Committee/UEM. Statistics: Statistica software 8.0 and R 3.0.2. In survival analysis was used estimated graphic Kaplan-Meier (log-rank). Results: The survival rate was higher in Et6cH group ($p < 0.05$) that presented the highest production of IL-10 in T8. The data show that the Et6cH drug regulated the IL-10 production, regulatory cytokine [4], and that this increase is associated with increased survival. The mechanism of action may involve decreased inflammation, the main phenomenon of the pathogenesis of infection with *T. cruzi* [5,6].



Table 1. Mean and standard deviation of the survival and mortality of swiss male mice, 8 weeks, infected intraperitoneally with 1400 blood trypomastigotes of *T. cruzi* (Y-strain) and subjected to the treatment of different dilutions of grain alcohol.

Groups	Survival (days)	Expected Survival (dias)	Mortality (%)	Mortality (N/T)
CI	27.8±22.9 ^a	7.18 ^a	94.1 ^a	(16/17) ^a
Et _{6cH}	59.9±33.3 ^b	12.83 ^b	70.6 ^a	(12/17) ^a
Et _{30cH}	26.0±23.6 ^{ac}	6.02 ^{ac}	94.1 ^a	(16/17) ^a

Different letters in the column mean difference ($p \leq 0.05$). CI - infected control by *T. cruzi*; 6cH - Treated with alcohol in 6cH power; and 30cH - Treated with alcohol in 30cH power.

Keywords: *Trypanosoma cruzi*, cytokine, ethyl alcohol.

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A35 - Highly diluted drugs reduce parasitaemia and alter survival in mice infected by *Trypanosoma cruzi*

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Dinamized and highly diluted drugs promote immunomodulatory activity. **Objective:** To relate the IL-2 cytokine with parasitaemia and survival in mice infected by *T. cruzi*. In a blind, controlled and randomized study, 76 swiss male mice, 8 weeks, infected IP (1,400 trypomastigote Y-strain-*T.cruzi*) were divided into groups with 19 animals/group and treated: *Kalium causticum* - G_{Caus}, *Conium maculatum* - G_{Con}, *Lycopodium clavatum* - G_{Ly} and alcohol solution 7%, vehicle for preparation of the drugs. All in dinamization 13CH. Treatment: 48 hours before infection and 48, 96 and 144 hours after inoculation, offered diluted in water (1mL/100mL) for 16 consecutive hours. Evaluations: IL2 dosage (pg/mL) - in the serum of 3-4 animals/ group obtained at the times T0 (before infection), T5, T8, T9 and T12 (5, 8, 9 and 12 daysafter infection) using BD CBA Mouse Th1/Th2/Th17 Cytokine Kit measured in flow cytometry; Parasitemia - daily count of parasites (Brenner technique), the 1st day of infection to death of animals or negativity; Survival- computed for 90 days after infection. Approved by Animal Committee / UEM (protocol n° 54/11). Statistics: "t" and Mann-Whitney test, 5% significance (Statistic 8.0). **Results:** Figure 1 provides details the relationship between parasitemia, IL-2 production and survival. The parasitemia was significantly different between groups, and lowest in G_{Con} that showed early mortality and significant reduction of IL-2 on the 9th day of infection. Survival was higher in G_{Ly}. Data shows that the drugs used modulated IL-2 differently, the reduction of parasitemia is not related to the lowest concentration of cytokine and therefore lower T-cell activation [1,2,3,4], and that higher IL-2 is related with longer survival.

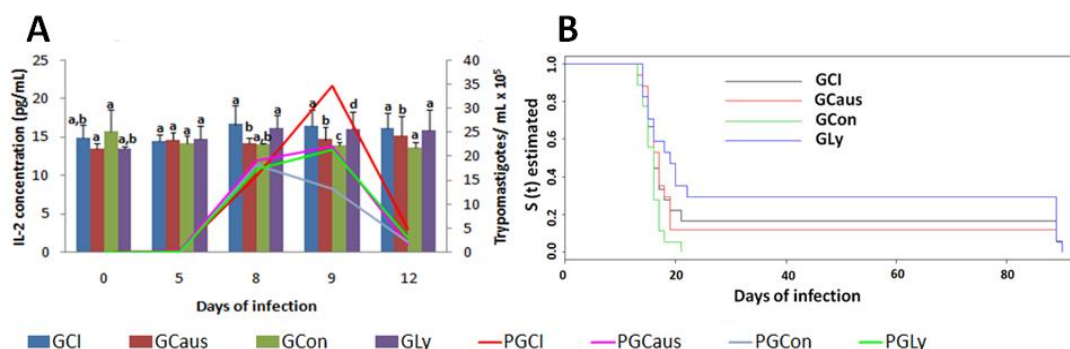


Figura 1. A-Concentration (pg/mL) IL-2 cytokine (left axis) and parasitemia curves (right axis - parasites/mL) at the time: zero, 5th, 8 th, 9 th and 12 th days of infection, the GCI GCAus, GCon and GLy groups. B- Survival analysis of swiss male mice, 8 weeks inoculated with 1,400 trypomastigotes of the Y-strain of *Trypanosoma cruzi* treated with constitutional medicines: *Kalium causticum* 13CH (GCAus), *Conium maculatum* 13CH (GCon) and *Lycopodium clavatum* 13CH (GLy) or with 7% alcohol solution (GCI). * p <0.05. Different letters on the same day of infection = groups with statistical difference (p <0.05). GCI – GCI cytokine; GCAus – GCAus cytokine; GCon – GCon cytokine; GLy – GLy cytokine; PGCI – GCI parasitemia ;PGCAus – GCAus parasitemia; PGCon- GCon parasitemia; PGLy– GLy parasitemia.

Keywords: *Trypanosoma cruzi*, Highly diluted medication, cytokine, parasitemia, mice

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A36 - *Kalium causticum* 13CH modulates cytokines improving parasitological parameters but not survival in mice infected by *T.cruzi*

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Introduction: Homeopathic medicines stimulate the biological system [1]. **Objective:** To relate the kinetics of the cytokines with parasitaemia and survival in mice infected by *T. cruzi*. **Methodology:** In a blind, controlled and randomized study, 38 swiss male mice, 8 weeks, infected IP (1,400 trypanomastigote Y-strain-*T.cruzi*) were divided into groups (19 animals/group) and treated: GCaus – *Kalium causticum* 13CH and GC-alcohol solution 7%, vehicle for preparation of the drugs. Treatment: 48 hours before infection and 48, 96 and 144 hours after inoculation, offered diluted in water (1 mL/100 mL) for 16 consecutive hours. Evaluations: Determination of cytokine (pg/mL) - in the serum of 3-4 animals/group obtained at the times: T0 (before infection), T5, T8, T9 and T12 (5, 8, 9 and 12 days after infection), using BD CBA Mouse Th1/Th2/Th17 Cytokine Kit measured in flow cytometry; Parasitemia – daily count of parasites (Brenner technique), the 1st day of infection to death of animals or negativity; Survival - computed for 90 days after infection. Approved by Animal Committee / UEM (protocol n° 54/11). Statistics: "t" and Mann-Whitney test, 5% significance (Statistic 8.0). **Results:** GCaus showed a significantly lower parasitaemia than GCI. There was no significant difference in survival. The Figure 1 provides details in the relationship between parasitemia and cytokine profile. Although *Kalium causticum* 13CH promoted significant reduction in parasitemia and cytokine modulation (increased IL-10 and reduced IL-17) related to the reduction of the infection [2,3], other factor slinked to resistance against infection which were not controlled, allowing the progression of infection and survival [4].



A37 -Technological Development and Physical Characterization of Inert Homeopathic Globules

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Introduction: Globules are homogeneous spheres classified with numbers according to their average mass ^[1], and made of pure sucrose, lactose or by a mix of lactose and sucrose. Globules technological process is not described in literature and its production steps are not divulged. **Aim:** Technological development of inert homeopathic globules number 5 through factorial design. **Methodology:** Factorial design (2², Box & Hunter) was used to determine and quantify the influence of process variables on the globules production. The globules developed and commercial globules were submitted to tests described in official compendia (homeopathic or not), such as: morphology, particle size, average mass, solubility, pH, sugar identification, disintegration time, hardness, diameter, friability, impregnating and microbiological tests ^[1,2]. **Results:** The technological process developed based on gain of layers around sugar core crystal proved to be feasible according to Box plot statistical analysis. Using this methodology, we produced inert globules which were approved in all Brazilian pharmacopeia parameters described by dragees pharmaceutical forms. Considering the impregnating test, an irregular distribution of dye (methylene blue) and commercial drug (minoxidil) was detected, when commercial and developed globules were analyzed. **Conclusions:** The present study showed the importance of factorial design to optimize the technological process of globules and signalize the need to review the quality control items currently described in the official monograph. Additionally, this work intends to democratize the technologic procedures in order to open new globules production markets in Brazil, which can influence the price and market availability of these pharmaceutical forms.

Key words: globules, pharmacopeia tests, homeopathy, factorial design.

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A38 - Study on homeopathic drugs used for treatment alcoholism

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Introduction: The substance addiction treatment is a major challenge not only for experts, but for all healthcare professionals, that in exercising its function should seek more effective ways to identify in their patients the problem of harmful use of alcohol and working with them. The Homeopathic treatment of alcoholism, despite being seen as an alternative treatment, has shown significant results in this therapy, working together with the pharmacological conventional allopathic treatment, because it generates the elimination of alcohol absorbed and away from the patient of their addiction, making detoxification. The acute or chronic alcoholism can be treated with homeopathic medicines, to be in the first case being used paroxysmal states of medicines and in the second, deep action medicines and smooth [1-3]. **Objective:** Identify the main homeopathic medicines used in the treatment of alcoholism. **Methodology:** This is a qualitative study, outlined from a literature review. **Results:** The treatment of alcoholism with homeopathic drugs aims to restore the physical and psychological balance of patients because they eliminate the alcohol and promotes detoxification of the body [3, 4]. They were listed as the main homeopathic substances used in the treatment of alcoholism [2-4]. **Conclusion:** There are several homeopathic substances that can act as a complementary treatment to conventional allopathic treatment, they highlight the *Nux vomica*, the *Opium* and *Hyosciamus niger*. There is need for wider dissemination of the benefits of homeopathic remedies for various health problems, including alcoholism.

Key-words: alcoholism, homeopathic remedy, *Nux vomica*, *Opium*, *Hyosciamus niger*.

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A39 - Posology of Homeopathic medicines

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Introduction: The posology in Homeopathy may look like a well established topic, but hides important surprises for anyone who makes a deeper investigation. It's unnecessary to comment its importance to pharmacists in this historical moment: the officialization of pharmacist prescription. On the other hand, there is a lack of scientific literature about this topic. **Objective:** This work aims to study the evolution of homeopathic medicines since its birth until nowadays. **Results:** The way to prepare and administer the medicine by the Law of Similars, according to the most important official references in Brazil [1], differs from that used by classic homeopathic writers, such like Hahnemann [2-4], Kent, Boeninghausen, Jahr [5], Benoit Mure, Hering and Margareth Tyler. **Conclusion:** The concept of minimum dose has been confunded with the dinamized medicine, and this work did not detected the exact moment and the reasons why those changes were made: now the reference to dispensation of centesimal scale is not the globule (nor in unique dose, neither dissolved to be used in repeated dose) and became to be the potency, dinamized in hydroalcoholic solution 30% [1]. This change may lead to different results from the base of homeopathic clinical knowledge, used until today.

Key words: homeopathy, posology, medicine, pharmacist.

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A40 - Homeopathic constitution type of children with nocturnal bruxism and association with sleep quality and other parasomnias

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Introduction: According to the International Classification of Sleep Disorder, sleep bruxism is classified as a “sleep related movement disorder” and defined as an oral activity characterized by grinding or clenching of the teeth during sleep, and exaggerated occurrence of rhythmic masticatory muscle activity (RMMA) [1,2]. **Objective:** The objective was to evaluate the homeopathic composition type of children with nocturnal bruxism and its association with sleep quality and other parasomnias. **Methodology:** Children (n=30) from 3-12 years with reports answered by parents/guardians were evaluated at Federal University of Rio de Janeiro in the Pediatric Department Clinic in 2014. Children with syndromes, cognitive disorders, tooth decay, tooth disorder and malocclusion were excluded. Through interviews with parents/guardians, the following variables were investigated: biotypology: (sulphuric, phosphoric, carbonic and fluoric) [3], sleep quality (normal or stirred) and parasomnias (sleepwalking, somniloquy, bedwetting and snoring). The data were analyzed by chi-square test with 5% significance level. **Results:** Considering the sample, 56.7% were girls and 43.3% boys. The most prevalent biotypology was sulphur (76.7%), followed by phosphorus (16.7%) and fluoric (6.7%), regardless of gender ($p = 0.185$). Sleep quality did not influenced composition types ($p = 0.667$), but rather dreams reported by parents ($p = 0.168$), but no nightmares ($p = 0.758$). Soliloquy ($p = 0.651$), bedwetting ($p = 0.604$), snoring ($p = 0.417$), sleepwalking ($p = 0.722$) were not influenced by composition types. **Conclusions:** We concluded that the patients with nocturnal bruxism tend to be sulphur, regardless of gender and the composition type *did not influence the quality of sleep, or the prevalence of parasomnias*.

Key words: Sleep Bruxism, Homeopathy, Children

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Os autores do artigo intitulado “Homeopathic constitution type of children with nocturnal bruxism and association with sleep quality and other parasomnias”, declaram que não há nenhum conflito de interesse que possa invalidar a publicação deste poster.



A41 - Two cases report comparing histopathological features of canine transmissible venereal tumor (TVT) after treatment with decimal potencies of *Viscum album* or Vincristine

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The histopathological features of two canine TVT cases, one treated with *Viscum album* (Q) and the other with Vincristine, were evaluated. Both female dogs were submitted to weekly clinical evaluation for three months. Tumor infiltrating leukocyte pattern and apoptosis were analyzed quantitatively, using a computer image analysis system, in two times: before the beginning of treatment and after six weeks. The lysozyme positivity associated to the typical morphology confirmed the diagnosis of TVT. Ten fields were randomly photographed by a digital system. Each captured image was analyzed quantitatively by the Metamorph® software, considering the number of infiltrated leukocytes, mitosis and Caspase 3 + cells per field. The number of leukocytes increased in the *Viscum-album* treated dog during the observation period (Kruskal Wallis, $p < 0.05$), but not in Vincristine treated dog. There was increase in the rate of positivity for Caspase 3 between 2 biopsies, taken before and after treatment with *Viscum album* (ANOVA, $p = 0.01$), but not after Vincristine treatment. Even though, the tumor remission could be achieved only in Vincristine-treated dog, with an abrupt reduction of tumor mass in the last 20 days of treatment. The increase in Caspase 3 positivity and leukocyte infiltration after treatment shows that the *Viscum album* anti-neoplastic mechanisms were not enough to reach a complete tumor remission in this case. This study was approved by the UNIFEOP – CEUA, under the protocol 2011/02 and the proprietary signed a free agreement to participate to this trial.

Key words: Transmissible venereal tumor, *Viscum album*, Vincristin, dog, clinical report.

Financial support: IKF-Berlin

I declare that there is no conflict of interest related to this study.



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A42 - Carbo animalis and immune response to Ehrlich ascites tumor in mice: an experimental model

Thayná Neves Cardoso (1), Juliana Amaral, Aloisio Cunha de Carvalho, Luciane Costa Dalboni, Luana Ramos, Silvio Leite Monteiro da Silva, Fabiana Rodrigues Santana, Elizabeth Cristina Perez Hurtado, Leoni Villano Bonamin (1)

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Homeopathy has been used as an effective therapy in the treatment of cancer and clinical reports show improvement in the quality of life of terminally patients treated with the homeopathic medicine carbo animalis, however, the literature on this subject is rare [1, 2, 3]. The objective of this study was to propose an experimental model to verify the possible effects of carbo animalis in the immune response to a highly malignant carcinoma, as well as their impact on the general condition of the sick animals. Male Balb/c mice were inoculated with Ehrlich ascites tumor and treated with carbo animalis 6cH or 6cH+30cH (potency association). The control group was treated with the succussioned vehicle. Clinical signs, survival and the local immune response (peritoneal) were evaluated. T lymphocytes, B1 and B2, NK cells and phagocytes were identified and quantified by immuno-cytochemistry and flow cytometry. Animals treated with carbo animalis 6cH+30cH showed increase of incidence in clinical signs comparing to the other groups. The local immune response showed increase in CD25+ / Total T cells and B1/B2 cells ratio in the group treated with carbo animalis 6cH. In contrast, animals treated with carbo animalis 6cH+30cH showed increase in the number of CD3+ cells and NK cells, both adhered to tumor cells. This preliminary work provides a useful experimental protocol for the study of the mechanisms of this remedy and shows the possible relevance of homeopathic potencies association in the anti-neoplasm treatments.

The study protocol was approved by CEUA – UNIP, under the number: 156/13

Key-Words: Ascites Ehrlich tumor, homeopathy, carbo animalis, immunology, oncology.

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Supported by: CAPES – PROSUP

I declare that there is no conflict of interest related to this study.



A43 - Benefits and side effects of homeopathic medicines in mice bearing Ehrlich tumor

Juliana Gimenez Amaral, Thayná Neves Cardoso, Aloísio Cunha de Carvalho, Luciane Costa Dalboni, Luana Ramos, Silvio Leite Monteiro da Silva, Fabiana Rodrigues Santana, Cideli de Paula Coelho, Louise Teixeira, Elizabeth Cristina Perez Hurtado, Leoni Villano Bonamin (PhD)

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Universidade Paulista – UNIP – São Paulo – SP - www.unip.br

Introduction: Basic research on homeopathy has advanced greatly in recent years, with the development of in vivo experimental models and in vitro, their mechanisms of action are not yet known.

Objective: describe different aspects related to the biology of the Ehrlich tumor in mice, in relation to growth, histological organization and immune response after treatment of carnosinum and other homeopathic medicines.

Methods: Carnosinum was chosen after an initial pilot experiment, comparing different drugs used in the "Banerji Protocol", to be a model for the study of survival, clinical, immune and histopathological parameters. In the second phase, different potencies of Carnosinum (6CH, 200cH, 6cH + 200cH) [chord of potencies or "MIX"] or vehicle (control) were analyzed. **Results:** Mice treated with Carnosinum 6cH+200cH (MIX) presented less necrosis and tissue invasion, more caspase 3 positive cells and increase of the CD4+/CD8+ cell ratio, associated to increase of CD25+ regulatory/activated cells. In contrast, the group treated with Carnosinum 6CH presented more edema in the tumor inoculation site. No treatment induced changes in the immune response to the tumor. Clinical improvement of the animals treated with Carnosinum MIX associated with worsening of the injury at the inoculation site in the animals treated with Carnosinum 6CH reveal the importance of homeopathic potency in treatment outcome. **Conclusion:** Further analyzes are needed to elucidate the mechanism of action of these homeopathic medicines. This research was approved and certified by the Research Ethics Committee of Universidade Paulista under the Protocol. 158/2013 - CEP / ICS / UNIP

Keywords: Tumor Ehrlich ascites, high dilutions, homeopathy, Carnosinum, experimental oncology.

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A44 - Obtaining a hydroalcoholic solution from smoke's cigarette as possible treatment of smoking

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Introduction: The cigarette is obtained from dried leaves of the Nicotiana genus and it has a psychoactive drug, the nicotine. When the smoke is inhaled, it takes 10 to 20 seconds to reach the brain, peaking at 10 minutes. Cigarettes are the most popular way to consume tobacco in the world, to be portable, practical and delivery of nicotine immediately. It represents, approximately, 95% of the drug market in the world [1,2].

Objective: The objective is to obtain a hydroalcoholic solution from smoke's cigarette, to produce a medicine as an alternative treatment to the smoking. **Methodology:** Based on artificial lung model [3,4], we obtained the cigarette's smoke by extraction with distilled water, in a plastic water bottle. This approach is able to pick up the smoke produced by the burning of a cigarette into the bottle. After extraction, the residual distilled water was collected to determine the pH, and the smoke obtained was diluted in 50 mL alcohol 70 GL. **Results:** It was obtained a 50 mL of hydroalcoholic solution from smoke's cigarette which presented an intense limpid yellow color, with pH 5.28, measured in a unit Metter Toledo MPC 227 to 25 °C. The chemical characterization of this solution will be done by gas chromatography assay. **Conclusion:** It is possible to obtain hydroalcoholic solution from smoke's cigarette using a simple, low cost and affordable method, to use as homeopathic medicine to treat smoking.

Key words: Tobacco, smoking, treatment, homeopathy.

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