

CONFERENCE PANEL

Title : **Combining Drugs.**
Polytherapy and the Association of Medicinal Substances in Asia

Convenor : Laurent Pordié (CNRS-Cermes3, Paris)

Synopsis : The paradigm shift that saw pharmaceutical production and biomedicine enter their molecular era in the middle of the twentieth century might be challenged today. On the front line stands the crisis of innovation, characterized by increasing attrition rates and a declining number of new molecular entities put on the market, and recognized by both industries and regulatory authorities. A number of “new” treatments thus account for the reorientation of existing molecules towards new therapeutic targets. In this context, active substances are also combined for an increasing range of disorders, as in the case of HIV tri-therapy, treatments for epilepsy and tuberculosis, or Artemisinin Combination Therapy for malaria. While it holds a marginal place in the global practice of biomedicine, the use of these composite pharmaceuticals is of significant material and epistemological, as well as social and sociological relevance. This is particularly true in Asia. Whether it concerns the innovative hybrid formulas stemming from the industry of traditional medicines, the physicians’ clinical practice aiming to answer novel epidemics and drug resistances, or the extemporaneous drug assemblages made in pharmacies and other (illicit) outlets, pharmaceuticals are often combined with the intention to create original, poly-molecular therapeutic entities. These practices are not to be confused with, or understood as medical ‘prescriptions’ but as producing single yet composite materials on their own. This panel takes these objects as a privileged vantage point for the study of material culture and economy, regimes of knowledge production, and social and regulatory environments. It brings together a multidisciplinary panel (anthropology, history, social pharmacy) in a collective attempt to shed light on the many dimensions of polytherapy as it faces epidemiological, medical, legal and sociocultural challenges in India, China, Cambodia, Thailand and The Philippines.

Speakers: Stefan Ecks (University of Edinburgh)
 Jean-Paul Gaudillière (CERMES3, Paris)
 Anita Hardon (University of Amsterdam)
 Niyada Kiatying-Angsulee (Chulalongkorn University, Bangkok)
 Laurent Pordié (CERMES3, Paris)

Individual presentations (chronological order)

Models of Drug Effects in Combination Drug Therapies in India: Combination or Contradiction?

Stefan Ecks (University of Edinburgh)

"Combination drug therapies" administer two or more therapies to patients at once. They include combinations of separate pills, the combination of several active ingredients in a single pill, as well as combinations of drug and non-drug forms of therapy. This paper explores the uses of combination drug therapies in India. In biomedicine, combinations of drugs are extremely common, and usually labelled polypharmacy. Both therapeutic and market reasons can account for this. Fixed-dose combinations are also very common in the Indian pharmaceutical market, and they can be found across all therapeutic segments. If such fixed-dose combinations can count as "new" entities depends on whether they are categorized from a perspective of pharmacology or from a perspective of branding. The paper will also explore the logic of "combination" from both a biomedical and various non-biomedical angles. Combination therapies rest on an idea of specific aetiology that is not shared by non-biomedical healing traditions in India such as Ayurveda, Unani, and Indian homeopathy. It will be argued that biomedical "combination" drug therapies are co-constituted by both non-pharmacological and non-biomedical concepts of what a "drug therapy" is.

Re-assembling Drugs in Cambodia.

Laurent Pordié (CNRS-Cermes3, Paris)

Pharmacies play a key role in Cambodian healthcare. Although the personnel of these outlets are generally unqualified, they do possess specific knowledge about drugs. This is rendered especially acute in the way they combine (*psohm*) medicines (*thnam*). These drug sellers are supplied with industrial products, which they unpack, re-assemble and sell to patients in the form of *thnam psohm*, or combined medicines. Presented in small plastic bags, these assortments of individual pharmaceuticals are the most common prescription regimen in the country, so much sought after that some industries and larger pharmacies now involve themselves in their mass-production. This paper examines the way in which these unqualified drug sellers acquire their knowledge – through a range of unofficial and official channels – and how, in turn, they transmit it to their family members. Second, it explores the drugs' association logics and the various characteristics contemplated to create the combinations. The reinterpretation of therapeutic indications and understanding of pharmacological families, the cost, colors, forms and provenance of the drugs, as well as the patients' preferences influence the choice of the drug sellers and lead to dramatic epistemological heterodoxies. While the *thnam psohm* pose major public health problems, they are adapted to people's needs and expectations, resonating as they do with their visual, imaginary and economic universes. This paper finally reflects on the way the pragmatics of pharmaceutical practice, mingling official and unofficial regimes, translate into pharmaceutical value.

Yachud in Thailand: The Public Health Scenario, Health Professions Responses, and Consumers Perspectives

Niyada Kiatying-Angsulee (Chulalongkorn University, Bangkok)

The combination of drugs is a common feature in the health cultures of Asia that concerns both traditional healers (herbal compounds) and biomedicine (combination of several items in one prescription). In Thai language, the term *yachud* indicates the latter pharmaceutical combinations; it refers to a plastic pack of three to five drug tablets and/or capsules sold in private outlets for various ailments. The *yachud* may target biomedically defined disorders such as malaria, as well as a

range of symptoms (muscle-ache, joint-pain) and traditional etiologies, such as *phit kaboon* and *padong*. These “combined medicines” have been more recently used for weight control. This study aims to examine the history and the current state of *yachud* in Thailand, and offers a reasoned analysis of consumers’ perspectives. Considered as a dangerous practice, the use of *yachud* has raised concerns for health authorities in 1980 and led to an amendment of the Drug Act 1967 that prohibits their sale. While abundant efforts have been put together to improve the situation, the *yachud* are still very popular in both rural and urban settings. Disappointed with the current health care system, patients use these products as a form of self-medication, hoping for speedy recovery. In order to understand the persistence of this practice, this paper will explore matters pertaining to the perception of risk between patients and health professionals, the economy of drug selling and the distribution channels, involving as they do today the use of new technologies such as the Internet.

Global Pharmaceutical Mixtures: Artemisinin-based Therapies from Formulations to Molecular Combinations (1975-2005)

Jean-Paul Gaudillière (INSERM/EHESS-Cermes3, Paris)

Artemisinin-based combination therapies have become the key medications used in malaria treatment programs worldwide. This situation is often referred to as a major if not the most important success of research policies aiming at the “integration” and/or the “modernization” of Asian – in that case Chinese – traditional medicine. Based on a collective inquiry launched within the framework of the ERC project GLOBHEALTH, this paper examines the role “mixtures” have played in the trajectory of artemisinin and its derivatives from the late 1970s to the early 2000s. It argues for the succession of two different regimes of integration. The first one, which dominated the 1970s-80s, was a regime of reformulation. It combined the use of complex plant extracts originating in classical Chinese materia medica with: 1) the testing of mixtures in animals and humans; 2) the search for clinical equivalences between malaria and categories in the so-called TCM. This paradigm operated in China with limited international extensions most of them linked to WHO primary health care strategy. The second regime emerged in contrast in international arenas, first of all R&D programs, which linked Chinese as well as Western academics with pharmaceutical firms. This molecularization regime focused on the synthesis of artemisinin’s analogs and turned mixtures into chemical combinations whose envisioned merit was to reduce the probability of drug resistance. This transition provides a remarkable basis to discuss the dynamics of pharmaceuticalization in global health.

Informing Vita plus: A Case Study of the Reconfiguration of Filipino Health Herbs

Anita Hardon (University of Amsterdam)

In this contribution I describe the design and marketing of a popular herbal panacea in the Philippines. The product, First Vita Plus, contains five so-called ‘power herbs’, which have been tested for their health effects in Filipino labs. The herbs are packaged into a sugary health drink, and come with different fruity tastes. Vita Plus was designed by a community-oriented physician, who intended to increase the health of the poor by working with a social marketing company to increase access. As a result, Vita Plus is sold through multi-level marketing, with exaggerated health claims. I describe the way distributors in Palawan (an island where these Filipino herbs grow abundantly) convince their friends and families to use Vita Plus through health testimonials and semi-scientific powerpoint presentations. Our interlocutors pay a lot to become a member of the scheme and while some become rich by selling the products, many end up being in debt in their attempt to link up with the global service economy. I reflect on the way in this case traditional herbal medicines are reconfigured into a ‘modern’ health drink, and how in the process they become ‘informed’ (Barry 2005).

Bios

Stefan Ecks is co-founder of the Medical Anthropology Programme and a Senior Lecturer in Social Anthropology at Edinburgh University. He works on popular and plural professional concepts of body, health, and medicine in South Asian traditions. His recent research explored the dynamics of the Indian pharmaceutical market, changing ideas of mental health in South Asia, as well as pharmaceutical citizenship and access to health care for poorer people. He held visiting fellowships at the University of California at Berkeley, the Karl Jaspers Centre for Advanced Transcultural Studies at Heidelberg, and the Brocher Foundation at Geneva. He serves on the Editorial Boards of *Medical Anthropology*, *Anthropology & Medicine*, and *Medical Anthropology Quarterly*, and as Area Editor for Anthropology, Archaeology, Health, and Ethics of Research for the International Encyclopedia of the Social and Behavioral Sciences, 2nd Edition. Recent publications include the monograph *Eating Drugs: Psychopharmaceutical Pluralism in India* (New York University Press, 2013).

Jean-Paul Gaudillière is a Research Professor at the Institut National de la Santé et de la Recherche Médicale (INSERM) and the Ecole des Hautes Etudes en Sciences Sociales (EHESS) and director of the Center for Research on Science, Health, Medicine and Society (CERMES3) in Paris. His work addresses many aspects of the history and sociology of the biomedical sciences during the twentieth century. During the past ten years, his research has focused on the contemporary history of pharmacy, looking at the interplay between research, marketing, regulation and medical uses of drugs, especially drugs of biological origins. He currently works on global health, pharmaceutical innovation, and non-Western medical traditions. Amongst other works, he has edited *Ways of Regulating Drugs in the 19th and 20th Century* (Palgrave, 2013) and *The Development of Scientific Marketing in the 20th Century* (Pickering & Chatto, 2015). He is the author of *Inventer la Biomédecine. La France, l'Amérique et la Production des Savoirs du Vivant (1945–65)* (La Découverte, 2002).

Anita Hardon's scholarly work has taken shape around multi-sited ethnographies of global health technologies. Her studies contributed among others to a biosocial framework for understanding how the symbolic and social effects of drugs interact with their biomedical effects in everyday life, published in the *The Social Lives of Medicines* (Cambridge, 2002). Her research in the field of AIDS generated new insights on how poverty and hunger hinders access to life-saving AIDS medicines, and how social forms travel with medical technologies to diverse settings, changing care arrangements in situ. More recently, the *ChemicalYouth project* that she designed, was awarded an Advanced Grant of the European Research Council in 2012. Anita Hardon is director of the research priority area Social Science and Global Health and co-director of the Institute for Advanced Study of the University of Amsterdam.

Niyada Kiatying-Angsulee holds a Ph.D. in Health Policy from the London School of Hygiene and Tropical Medicine. A former Director (2009–2012) of the Social Research Institute of Chulalongkorn University, Bangkok, she is today Manager of the Drug System Monitoring and Development Center at the Faculty of Pharmaceutical Sciences in the same institution. Niyada serves in various committees at the Ministry of Public Health under the National Drug Policy Board. Her works include social pharmacy, women's health, policy analysis, regulation, and governance and ethics in public health. Her current research examines drugs combinations (yachud), steroids distribution, and consumers' perspectives, as well as antibacterial use and antibacterial resistance.

Laurent Pordié is an anthropologist and a pharmacologist, Senior Researcher with the French National Center for Scientific Research (CNRS) at the Cermes3, a unit focused on medicine, science and society in Paris. His current research interests revolve around what makes possible for pharmaceutical objects to come into being. Laurent is interested in the advent of science and technology in the industrial production of herbal medicines (India); in the changes in values, meanings, agency and therapeutic

power induced by the global circulation of pharmaceuticals; and in distribution networks, pharmaceutical regulation and heterodox practices of diagnosis and drug combination (Cambodia). His works include the books *Tibetan Medicine in the Contemporary World* (Routledge, 2008 - winner of the ICAS Book Prize 2009) and *Les nouveaux guérisseurs* (Editions de l'EHESS, 2013), as well as recent special issues published in *Culture, Medicine & Psychiatry* (2014), *Asian Medicine* (2014), *Anthropology & Medicine* (2015) and *Medical Anthropology* (2016).