

1ST WORKSHOP ON TRANSLATIONAL VENOMICS MEDICINE



CHALLENGING HUMAN ENVENOMING ISSUES EXPLORING & EXPLOITING SNAKE AND SCORPION VENOMS AND ANTIVENOMS



October 2nd – 6th, 2017



Institut Pasteur of Casablanca, Morocco

TOPICS OF THE WORKSHOP

- ▶ BIOLOGY & SYSTEMATICS
- ▶ VENOMS, COMPOSITION AND MODE OF ACTION
- ▶ EPIDEMIOLOGICAL ASPECTS & MANAGEMENT OF ENVENOMATION
- ▶ IMMUNOTHERAPY (CLASSIC AND INNOVATIVE)
- ▶ VENOMICS & ANTIVENOMICS
- ▶ THERAPEUTIC POTENTIAL OF VENOM BIOACTIVE PEPTIDES

► **THE TEACHING TEAM**
[THEORETICAL COURSES]



RETO STÖCKLIN

SCIENTIFIC ENTREPRENEUR
ATHERIS LABORATORIES
GENEVA, SWITZERLAND

VINCENT VAGNIÈRE

INDEPENDENT CONSULTANT EXPERT
IN BREEDING AND MILKING
LAUSANNE, SWITZERLAND



DOMINIQUE KOUA

EXPERT IN NEXT GENERATION
TRANSCRIPTOMICS DATA ANALYSIS
UNIVERSITY OF BERN, SWITZERLAND

JORGE FERNANDO PANIAGUA-SOLIS

INTERNATIONAL CONSULTANT AND SENIOR ADVISOR
FOR BIOTECHNOLOGY PRODUCTS DEVELOPMENT
SILANES LABORATORIES, MEXICO



WALTER GARCIA UBBELOHDE

DEPUTY DIRECTOR OF
MEDICAL RESEARCH
SILANES LABORATORIES, MEXICO

JUAN J. CALVETE

HEAD OF THE STRUCTURAL AND FUNCTIONAL
VENOMICS LABORATORY
BIOMEDICINE INSTITUTE OF VALENCIA, SPAIN



FABIEN TAIEB

EPIDEMIOLOGY OF EMERGING DISEASES UNIT
AND THE TRANSLATIONAL RESEARCH CENTER
INSTITUT PASTEUR OF PARIS, FRANCE

ROLAND STOCKMANN

HONORARY ASSISTANT PROFESSOR IN ZOOLOGY
UNIVERSITY OF PIERRE ET MARIE CURIE
PARIS, FRANCE



RYM BENKHALIFA

HEAD OF A RESEARCH TEAM AT THE LABORATORY
OF VENOMS AND THERAPEUTIC MOLECULES
INSTITUT PASTEUR OF TUNIS, TUNISIA

BALKISS BOUHAOUALA-ZAHAR

HEAD OF THE NANOBIOEDIKA RESEARCH TEAM AT
THE LAB OF VENOMS AND THERAPEUTIC MOLECULES
INSTITUT PASTEUR OF TUNIS, TUNISIA



FATIMA LARABA-DJEBARI

DEAN OF THE FACULTY OF BIOLOGICAL SCIENCES
UNIVERSITY OF SCIENCES AND TECHNOLOGY
ALGIERS, ALGERIA

OULAID TOULOUN

RESEARCHER
UNIVERSITY OF SULTAN MOULAY SLIMANE
BENI MELLAL, MOROCCO



MOHAMMED FEKHAOUI

DIRECTOR OF THE SCIENTIFIC INSTITUTE
OF RABAT
RABAT, MOROCCO

RACHIDA SOULAYMANI-BENCHEIKH

DIRECTOR OF THE CENTRE ANTI-POISON
ET DE PHARMACOVIGILANCE
RABAT, MOROCCO



SAÏD YOUNOUS

HEAD OF THE PEDIATRIC INTENSIVE CARE UNIT
CHU MARRAKESH
MARRAKESH, MOROCCO

NAOUAL OUKACHE

HEAD OF THE LABORATORY OF VENOMS AND TOXINS
INSTITUT PASTEUR OF MOROCCO
CASABLANCA, MOROCCO



► **THE TEACHING TEAM**
[PRACTICAL COURSES]



RETO STÖCKLIN

SCIENTIFIC ENTREPRENEUR
ATHERIS LABORATORY
GENEVA, SWITZERLAND

DOMINIQUE KOUA

EXPERT IN NEXT GENERATION
TRANSCRIPTOMICS DATA ANALYSIS
UNIVERSITY OF BERN, SWITZERLAND



NAOUAL OUKKACHE

HEAD OF THE LABORATORY
OF VENOMS AND TOXINS
INSTITUT PASTEUR OF CASABLANCA, MOROCCO

FATIMA CHGOURY

RESEARCHER AT THE LABORATORY
OF VENOMS AND TOXINS
INSTITUT PASTEUR OF CASABLANCA, MOROCCO



MYRIAM REZZAK

PhD. STUDENT AT THE LABORATORY
OF VENOMS AND TOXINS
INSTITUT PASTEUR OF CASABLANCA, MOROCCO

SALMA CHAKIR

PhD. STUDENT AT THE LABORATORY
OF VENOMS AND TOXINS
INSTITUT PASTEUR OF CASABLANCA, MOROCCO



► **THE ORGANISATION COMMITTEE**

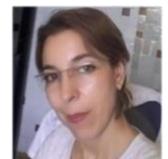


NAOUAL OUKKACHE

HEAD OF THE LABORATORY
OF VENOMS AND TOXINS
INSTITUT PASTEUR OF CASABLANCA, MOROCCO

FATIMA CHGOURY

RESEARCHER AT THE LABORATORY
OF VENOMS AND TOXINS
INSTITUT PASTEUR OF CASABLANCA, MOROCCO



MYRIAM REZZAK

PhD. STUDENT AT THE LABORATORY
OF VENOMS AND TOXINS
INSTITUT PASTEUR OF CASABLANCA, MOROCCO

SALMA CHAKIR

PhD. STUDENT AT THE LABORATORY
OF VENOMS AND TOXINS
INSTITUT PASTEUR OF CASABLANCA, MOROCCO



HASNA BOURA

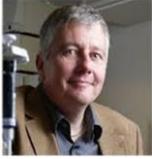
RESEARCHER AT THE LABORATORY OF DIGESTIVE
PATHOLOGY-ONCOLOGY
INSTITUT PASTEUR OF CASABLANCA, MOROCCO

LATIFA ANGA

RESEARCHER AT THE LABORATORY
OF VIROLOGY
INSTITUT PASTEUR OF CASABLANCA, MOROCCO



► THE SCIENTIFIC COMMITTEE



RETO STÖCKLIN

SCIENTIFIC ENTREPRENEUR

ATHERIS LABORATORY
GENEVA, SWITZERLAND.

BALKISS BOUHAOUALA-ZAHAR

HEAD OF THE NANOBIOMEDIKA RESEARCH TEAM AT
THE LAB OF VENOMS AND THERAPEUTIC MOLECULES

INSTITUT PASTEUR OF TUNIS, TUNISIA



NAOUAL OUKKACHE

HEAD OF THE LABORATORY OF VENOMS AND TOXINS

INSTITUT PASTEUR OF CASABLANCA
CASABLANCA, MOROCCO



► THE SPONSORS



PROGRAM OF THE WORKSHOP



DAY 1

- 09h00** REGISTRATION & WELCOME
- 09h15** OPENING CEREMONY & COURSE INTRO
- 09h35** ORAL PRESENTATION OF ONE-MINUTE OF THE RESEARCH PROJECTS BY EACH STUDENT
- 10h00** **COFFEE BREAK** 

SESSION 1: BIOLOGY & SYSTEMATICS

- 10h30** GEOGRAPHICAL DISTRIBUTION, BIOLOGY & SYSTEMATICS OF SNAKES.
Pr. MOHAMMED FEKHAOU [SCIENTIFIC INSTITUTE OF RABAT]
- 11h00** THE REPRODUCTION OF SCORPIONS - CLIMATE CHANGE IMPACT.
Pr. ROLAND STOCKMANN [PARIS VI UNIVERSITY]
- 12h00** MOROCCAN SCORPIONS: INVENTORY, REPARTITION & MEDICAL INTEREST.
Pr. OULAID TOULOUN [UNIVERSITY OF SULTAN MOULAY SLIMANE, BENI MELLAL]
- 13h00** **LUNCH BREAK** 

SESSION 2: EPIDEMIOLOGICAL ASPECTS & MANAGEMENT OF ENVENOMATION

- 14h00** EPIDEMIOLOGICAL AND MANAGEMENT OF SCORPION AND SNAKE ENVENOMATIONS.
Pr. RACHIDA SOULAYMANI-BENCHEIKH [CENTRE ANTI-POISON ET DE PHARMACOVIGILANCE, RABAT]
- 14h30** CLINICAL MANAGEMENT OF SCORPION AND SNAKE ENVENOMATIONS.
Pr. SAID YOUNOUS [CHU, MARRAKESH]
- 15h00** MANAGEMENT OF SNAKEBITE ENVENOMATION: CLINICAL INVESTIGATION AND THE IMPACT OF ANTIVENOM.
Dr. FABIEN TAEIB [INSTITUT PASTEUR OF PARIS]
- 16h00** **ROUND TABLE** - VENINS: POISONS ET MOLÉCULES THÉRAPEUTIQUES.

PROGRAM OF THE WORKSHOP



DAY 2

SESSION 3: VENOMS, COMPOSITION & MODE OF ACTION

- 09h00** SCORPION AND SNAKE VENOMS: COMPOSITION, MODE OF ACTION, PHARMACOLOGY AND PHYSIOPATHOLOGY.
Dr. NAOUAL OUKKACHE [INSTITUT PASTEUR OF MOROCCO]
- 10h00** STRUCTURAL & FUNCTIONAL DIVERSITIES OF BIOACTIVE SCORPION & SNAKE VENOM COMPOUNDS.
Pr. BALKISS BOUHAOUALA [INSTITUT PASTEUR OF TUNIS]
- 11h00** **COFFEE BREAK** 
- 11h30** INVOLVEMENT OF INFLAMMATORY RESPONSE AND OXIDATIVE STRESS IN PATHOGENESIS OF SCORPION ENVENOMATION: ROLE OF NEUROTOXINS.
Pr. FATIMA LARABA-DJEBARI [UNIVERSITY OF SCIENCE AND TECHNOLOGY OF ALGIERS]
- 12h30** SCORPION TOXINS TO UNDERSTAND NEUROPATHOLOGIES/ INTERACTION OF SCORPION TOXINS WITH THE NERVOUS SYSTEM.
Dr. RYM BENKHALIFA [INSTITUT PASTEUR OF TUNIS]
- 13h30** **LUNCH BREAK** 

SESSION 4: IMMUNOTHERAPY (CLASSIC AND INNOVATIVE APPROACHES)

- 14h00** CHALLENGES IN THE DEVELOPMENT OF ANTIVENOM, PAST AND FUTURE.
Dr. JORGE FERNANDO PANIAGUA-SOLIS [SILANES LABORATORIES, MEXICO]
- 16h00** **COFFEE BREAK** 
- 16h30** ADVANCES IN SPECIFIC TREATMENT AGAINST SCORPION ENVENOMATION: FROM IMMUNOTHERAPY TOWARDS VACCINE.
Pr. FATIMA LARABA-DJEBARI [UNIVERSITY OF SCIENCE AND TECHNOLOGY OF ALGIERS]
- 20h00** **GALA DINNER** 

PROGRAM OF THE WORKSHOP



DAY 3

SESSION 4: IMMUNOTHERAPY (CLASSIC AND INNOVATIVE APPROACHES)

09h00 STRATEGIES FOR ANTIVENOM EFFICACY IMPROVEMENT: NANOBODY GENERATION AND ENGINEERING.

Pr. BALKISS BOUHAOUALA [INSTITUT PASTEUR OF TUNIS]

10h00 **COFFEE BREAK** 

10h30 THE CLINICAL VALIDATION AND STANDARDIZATION OF ANTIVENOM.

Dr. WALTER GARCIA UBBELOHDE [SILANES LABORATORIES, MEXICO]

SESSION 5: VENOMICS & ANTIVENOMICS

11h00 STRUCTURAL & PROTEOMIC MASS SPECTROMETRY.

Dr. JUAN J. CALVETE [BIOMEDICINE INSTITUTE OF VALENCIA]

13h30 **LUNCH BREAK** 

14h00 NEW APPROACHES FOR VENOMICS AND ANTIVENOMICS INVESTIGATIONS.

Dr. JUAN J. CALVETE [BIOMEDICINE INSTITUTE OF VALENCIA]

16h00 **COFFEE BREAK** 

16h30 AN INTRODUCTION TO VENOMICS: COMBINING GENOMICS, PROTEOMICS AND BIOINFORMATICS.

Dr. RETO STÖCKLIN [ATHERIS LABORATORIES, GENEVA]



DAY 4

SESSION 6: THERAPEUTIC POTENTIAL OF SCORPION & SNAKE VENOM PEPTIDES

09h00 INTEGRATIVE BIOINFORMATICS APPROACH FOR VENOM GLAND TRANSCRIPTOME ANNOTATION.

Dr. DOMINIQUE KOUA [NATIONAL POLYTECHNICAL INSTITUTE OF YAMOOUSSOUKRO]

10h30 **COFFEE BREAK** 

11h00 NATURAL PEPTIDES TO DRUGS: VENOMOUS ANIMALS AS DRUG DISCOVERIES.

Dr. RETO STÖCKLIN [ATHERIS LABORATORIES, GENEVA]

13h00 **LUNCH BREAK** 

PROGRAM OF THE WORKSHOP

PRACTICE 1

- 13h30** BREEDING AND MILKING OF VENOMOUS ANIMALS.
Mr. VINCENT VAGNIÈRE [LAUSANNE, SWITZERLAND]
- 14h30** PROTEIN CONCENTRATION, VENOM ACTIVITY, GEL ELECTROPHORESIS, CHROMATOGRAPHIC TECHNIQUES, ANTIVENOM PRODUCTION, ANTIVENOM TITRATION, AFFINITY DETERMINATION, CROSS-RECOGNITION ASSAYS, ELISA TEST FOR THE CLINICAL VALIDATION.
Dr. NAOUAL OUKKACHE, Dr. FATIMA CHGOURY, SALMA CHAKIR AND MYRIAM REZZAK (Ph.D. STUDENTS) [INSTITUT PASTEUR OF MOROCCO]
- 16h30** **SOCIAL ACTIVITIES** 



DAY 5

PRACTICE 2

- 09h00** STRATEGIES FOR THE DISCOVERY OF NOVEL BIOACTIVE DRUG CANDIDATES IN ANIMAL VENOMS.
Dr. RETO STÖCKLIN & Dr. DOMINIQUE KOUA
- 11h00** **ROUND TABLE:** “BUILDING CAPACITIES IN TRANSLATIONAL VENOMICS MEDICINE”, “MAJOR CHALLENGES AND FUND RAISING OPPORTUNITIES”.
- 12h00** **CLOSING CEREMONY & CERTIFICATE DISTRIBUTION** 
- 14h00** **LUNCH BREAK** 

PROGRAMME DE LA TABLE RONDE

VENINS : POISONS ET/OU MOLÉCULES THÉRAPEUTIQUES



02 Octobre 2017



Faculté de Médecine et de Pharmacie
de Casablanca.

16h00 – 16h30 Accueil des participants.

16h30 – 17h00 Allocutions d'ouverture.

Directrice de l'Institut Pasteur du Maroc.

Directeur de la Direction de l'Epidémiologie et de Lutte contre les Maladies.

Directeur du Médicament et de la Pharmacie.

Doyen de la Faculté de Médecine et de Pharmacie de Casablanca.

17h00 – 17h15 Envenimation scorpionique et la valeur ajoutée de l'Immunothérapie : Preuves Scientifiques.

Pr. BALKISS BOUHAOUALA-ZAHAR Chef d'équipe NanoBioMedika, LVMT Institut Pasteur Tunis

17h15 – 17h30 Envenimation scorpionique & standardisation des antivenins.

Dr. WALTER GARCIA UBBELOHDE Directeur adjoint de la recherche médicale, Laboratoires Silanes, Mexique.

17h30 – 17h45 Profil clinique des antivenins administrés par voie intraveineuse, focus sur Scorpifav.

Dr. GUY HOUILLON Expert médical à SANOFI PASTEUR, France.

17h45 – 18h00 Apport des études cliniques dans la compréhension des envenimations scorpioniques & standardisation des antivenins.

Dr. JORGE FERNANDO PANIAGUA-SOLIS Consultant international et expert du développement de produits biologiques, Suisse.

18h00 – 18h15 Venins au service de la médecine.

Dr. RETO STÖCKLIN Expert dans le domaine de la découverte de nouveaux médicaments, fondateur et directeur des laboratoires Atheris, Suisse.

18h15 – 18h30 Discussion et recommandations des experts.

BIOGRAPHY OF THE EXPERTS



BALKISS BOUHAOUALA-ZAHAR

HEAD OF THE NANOBIOEDIKA RESEARCH TEAM AT THE LAB OF VENOMS AND THERAPEUTIC MOLECULES

INSTITUT PASTEUR OF TUNIS, TUNISIA

Pr. Balkiss Bouhouala-Zahar is a professor in Biochemistry and Head of NanoBioMedika research Team at the Laboratory of Venoms and Therapeutic Molecules of the IPT.

Her areas of expertise include scorpion venom analysis, genetic engineering of toxins and antibodies as well as the evaluation of serotherapy efficiency.

She has been nominated as Fellow of the African Academy of Sciences, FAAS since November 2013 and currently is appointed as a Member of the Advisory Committee (MAC).



JORGE FERNANDO PANIAGUA-SOLIS

INTERNATIONAL CONSULTANT AND SENIOR ADVISOR FOR BIOTECHNOLOGY PRODUCTS DEVELOPMENT

SILANES LABORATORIES, MEXICO

After a PhD in Biochemistry and Immunology, Dr Jorge Paniagua-Solis has more than 20 years of experience in the development of biotechnology products and some of them are approved by the FDA.

His areas of expertise include the development of Polyclonal (equine origin) and monoclonal therapeutic antibodies as well as in vitro diagnostics (IVD).

He is also involved in Strategic alliances, regulatory affairs, preclinical and clinical experience, Management of Academy-Industry relationships and Intellectual property and Orphan drug strategies such as antivenoms. Dr. Paniagua-Solis is currently working as a senior consultant in Teraclon (Spain) and Silanes laboratories (Mexico).

WALTER GARCIA UBBELOHDE

DEPUTY DIRECTOR OF MEDICAL RESEARCH

SILANES LABORATORIES
MEXICO CITY, MEXICO



Dr. Walter Garcia Ubbelohde is a doctor in Medicine; he graduated from the National Autonomous University of Mexico in 1995. He is currently the Deputy Director of Medical Research at Silanes Laboratories in Mexico.

His areas of expertise cover the design and execution of the entire clinical trials studies, the integration of global pharmacovigilance processes at national and international levels, orphan drug such as antivenoms designation request strategies in FDA (US Food and Drug Administration) and EMA (European Medicines Agency).

RETO STÖCKLIN

SCIENTIFIC ENTREPRENEUR

ATHERIS LABORATORY
GENEVA, SWITZERLAND



Dr. Stöcklin graduated from the University of Geneva with mass spectrometry, proteomics, protein engineering and bioinformatics as core expertise.

After a PhD in medical biochemistry in 1994, he specialised in the discovery of new drug candidates in animal venoms. Since 1995, Dr. Stöcklin is the head of Atheris SA and co-founded several emerging biotech, pharma and beauty-care companies. He is co-author of over one hundred peer-reviewed scientific publications and co-inventor of five granted patents.

Amongst other commitments, Dr. Stöcklin is currently coordinating the implementation of an ambitious new pharmaceutical company developing original antivenoms.

BIOGRAPHY OF THE EXPERTS



DOMINIQUE KOUA

EXPERT IN NEXT GENERATION
TRANSCRIPTOMICS DATA ANALYSIS

UNIVERSITY OF BERN, SWITZERLAND

After a master degree in agronomy (2004) and advanced studies in applied genetics (2006), Dr. Koua obtained a master in proteomics (2008) and his PhD in Bioinformatics at the University of Geneva (Switzerland) in 2012.

In 2008, Dr. Koua is actively working in the field of venomomics and specifically in the development of integrative bioinformatic solutions for comprehensive transcriptome annotation. He is collaborating with various international research groups working on spiders, snakes, cone snails, etc. A number of very good articles have been published from his research activities.



FABIEN TAIEB

EPIDEMIOLOGY OF EMERGING DISEASES UNIT
AND THE TRANSLATIONAL RESEARCH CENTER

INSTITUT PASTEUR OF PARIS, FRANCE

Fabien Taieb is a clinical doctor who, after a broad formation including intensive care and specialization in internal medicine and in Infectious and Tropical Diseases.

He obtained his specialist qualifications in basic sciences, management of anti-infectious drug and Public Health.

He is currently attached to the Center for Translational Science and the Epidemiology of Emerging Diseases Unit of Institut Pasteur Paris.

He is also in charge of the development of the clinical research in the International Network of Pasteur Institutes (INCREASE initiative).

JUAN J. CALVETE

HEAD OF THE STRUCTURAL AND FUNCTIONAL
VENOMICS LABORATORY

BIOMEDICINE INSTITUTE OF VALENCIA, SPAIN



Dr. Juan J. Calvete research focuses on venomomics and antivenomics.

Dr. Calvete served as first President (2004-2009) of the Spanish Proteomics Society. Since 2011 he is President of the European Section of the IST, Editorial Board Member of Toxicon, J Venom Res, Biochimie, and Editor-in-Chief of J Proteomics. Dr. Calvete belongs to the Scientific Advisory Committee of GSI.

In 2013, Dr. Calvete received the Vital Brazil Medal by Instituto Vital Brazil. He also co-authored more than 350 peer reviewed articles.

FATIMA LARABA-DJEBARI

DEAN OF THE FACULTY OF BIOLOGICAL SCIENCES

UNIVERSITY OF SCIENCES AND TECHNOLOGY
ALGIERS, ALGERIA



Professor Fatima Laraba-Djebari is a Teacher-Researcher at the Faculty of Biological Sciences of USTHB. She had more than 20 years of experience in Biochemistry, Immunology and Toxinology. She is now serving as the Dean of the Faculty of Biological Sciences of USTHB.

She is also Funder Member of Academy of Sciences and Technology of Algeria.

She has published books, two chapters of handbook and several indexed scientific publications. She has been serving as a reviewer in several journals and involved as an Editorial board member.

BIOGRAPHY OF THE EXPERTS



GUY HOUILLON

GLOBAL MEDICAL EXPERT

**SANOFI PASTEUR
LYON, FRANCE**

Guy Houillon, M.D has been working in pharma companies for 30 years and 15 years in the vaccine industry. He worked as a GP for two years and then got a master in Toxicology and Clinical Pharmacology in 1985 (Paris; France). He then joined several pharma companies working in the CNS field as clinical project leader and country medical director. He got a master in Health Economics and joined Sanofi Pasteur in 2002 as Global Medical Expert.

Current areas of expertise include Rabies vaccines, immunoglobulins, Yellow fever vaccines, Japanese encephalitis vaccines and anti-venoms.



RYM BENKHALIFA

HEAD OF A RESEARCH TEAM AT THE
LABORATORY OF VENOMS AND THERAPEUTIC
MOLECULES

INSTITUT PASTEUR OF TUNIS, TUNISIA

After a PhD of Neurosciences at the University of Angers and a post-doctoral internship at the Department of Neurobiology (CNRS, Marseille), Rym Benkhalifa joined the Laboratory of Venom and Therapeutical Molecules of the Institut Pasteur of Tunisia (IPT) where she is actually head of a research team. Her areas of interest are related to ion channels involvement in degenerative diseases and their interaction with natural peptides and toxins as therapeutic modulators.

She is a member of the IPT's Biomedical Ethics Committee and she is also responsible for institutional and international projects in Biosafety and Biological Risk Management, as a national focal point.

ROLAND STOCKMANN

HONORARY ASSISTANT PROFESSOR IN ZOOLOGY

**UNIVERSITY OF PIERRE ET MARIE CURIE
PARIS, FRANCE**



Roland Stockmann is a professor in Zoology and Animal Biology.

He has over 40 years of expertise in scorpion systematic, biology and distribution.

His areas of research include Etiology, Histology, and Cytology and scorpion reproduction.

Pr. Roland Stockmann co-authored two books and is part of more than 25 publications.

NAOUAL OUKKACHE

HEAD OF THE LABORATORY OF VENOMS
AND TOXINS

**INSTITUT PASTEUR OF CASABLANCA
CASABLANCA, MOROCCO**



Dr. Naoual Oukkache is part of the Institut Pasteur of Morocco since 2006 and is currently the head of the Venoms and Toxins laboratory.

Dr. Oukkache specializes in immunotherapy and molecular biology of antibodies.

Dr. Oukkache published more than 20 scientific articles in different peer reviewed international journals and contributed to numerous conferences.

Her specific areas of expertise include characterization of snake and scorpion venoms, venomics and antivenomics, therapeutics molecules from venoms and improvement of immunotherapy.

SUMMARY OF SPEAKERS

NAME	EMAIL	AFFILIATION	COUNTRY
BENKHALIFA RYM	rym.benKhalifa@pasteur.tn	INSTITUT PASTEUR OF TUNISIA	TUNISIA
BOUHAOUALA-ZAHAR BALKISS	balkiss.bouhaouala@gmail.com	INSTITUT PASTEUR OF TUNISIA	TUNISIA
CALVETE JUAN J.	jcalvete@ibv.csic.es	BIOMEDICINE INSTITUTE OF VALENCIA	SPAIN
CHAKIR SALMA	salmachakir19@gmail.com	INSTITUT PASTEUR OF MOROCCO	MOROCCO
CHGOURY FATIMA	fchgoury@gmail.com	INSTITUT PASTEUR OF MOROCCO	MOROCCO
FEKHAOUI MOHAMMED	fekhaoui@israbat.ac.ma	SCIENTIFIC INSTITUTE OF RABAT	MOROCCO
GARCIA UBBELOHDE WALTER	wgarcia@silanes.com.mx	SILANES LABORATORIES	MEXICO
KOUA DOMINIQUE	dominique.koua@atheris.com	NATIONAL POLYTECHNICAL INSTITUTE OF YAMOOUSSOUKRO + UNIVERSITY OF BERN	IVORY COAST SWITZERLAND
LARABA DJEBARI FATIMA	flaraba@hotmail.com	UNIVERSITY OF SCIENCES AND TECHNOLOGY HOUARI BOUMEDIENE	ALGERIA
OUKKACHE NAOUAL	oukkache.naoual@gmail.com	INSTITUT PASTEUR OF MOROCCO	MOROCCO
PANIAGUA-SOLIS JORGE FERNANDO	jpaniagua@bleuwin.ch	INTERNATIONAL CONSULTANT EXPERT IN BIOLOGICAL PRODUCTS DEVELOPMENT	SWITZERLAND
REZZAK MYRIAM	myriamrezzak@gmail.com	INSTITUT PASTEUR OF MOROCCO	MOROCCO
SOULAYMANI-BENCHEIKH RACHIDA	rsoulaymani@gmail.com	CENTRE ANTIPOISON ET DE PHARMACOVIGILANCE DE RABAT	MOROCCO
STÖCKLIN RETO	reto.stocklin@atheris.com	ATHERIS LABORATORIES	SWITZERLAND
STOCKMANN ROLAND	roland.stockmann@wanadoo.fr	PARIS VI UNIVERSITY	FRANCE
TAIEB FABIEN	fabien.taieb@pasteur.fr	INSTITUT PASTEUR OF PARIS	FRANCE
TOULOUN OULAID	o_touloun@yahoo.fr	UNIVERSITY SULTAN MOULAY SLIMANE, BENI MELLAL	MOROCCO
VAGNIÈRE VINCENT	vva1@rocketmail.com	INDEPENDANT CONSULTANT, EXPERT IN BREEDING AND MILKING	SWITZERLAND
YOUNOUS SAID	anesthesie.marrakech@gmail.com	CHU MARRAKESH	MOROCCO



WELCOME TO CASABLANCA !