Co-funded by the Erasmus+ Programme of the European Union

EMJM – ERASMUS MUNDUS JOINT MASTER

PROGRAMME Leading International Vaccinology Education – LIVE

SUPPLEMENTARY DOCUMENT 3

LIVE3 INVITED SCHOLARS APPLICATION PROCEDURE & SELECTED CV

PREAMBLE

This file is the supplementary document 3 for the project of the Erasmus Mundus Joint Master "Leading International Vaccinology Education" (LIVE). LIVE is submitted to the Erasmus Mundus call of Feb 16th, 2023.

This document contains:

- The procedure to apply for "Invited Scholar" position in the EMJM LIVE, also published online on the LIVE website
- The CV of 25 selected invited scholars, including the 8 invited scholars registered in the EACEA Mobility Tools for the intake 1 of the EMJM LIVE
- The CV of the 2 external experts for the External Quality Assurance Committee (E-QAC): Czerkinsky Cecil & Plotkin Stanley A

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hyperlinks refer to the paragraph

https://masterlive-vaccinology.eu/

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1. The procedure to apply for "Invited Scholar" position in the EMJM LIVE

Also available on the LIVE website in the menu "About Us > Scholars, Lecturers, QAC members"

Future Scholars: From 1 week to 3 months

Are you an expert on vaccinology or regulations applied to vaccinology?
Whatever your view on the subject, from scientific or industrial fields (immunology, infectiology, epidemiology, industrial process or quality) to humanities and laws (public health, health policy, regulations), you will:

- **make an impact by joining the LIVE consortium faculty** and get the unique opportunity to meet our students,
- **meet the vaccinology leaders of tomorrow**, and
- **share knowledge and good practices** with the largest vaccinology science community.

The consortium offers each year guest lecturer's funding opportunity with **competitive remuneration. Travel and accommodation costs** of the visiting scholar are funded by the LIVE consortium. The LIVE course offers 3 to 8 positions / year for a maximum duration of three months to leading academics and practitioners preferentially, but not exclusively, from outside the European Union to contribute to the teaching programme. The scholar will be integrated in the department organising the LIVE Master at the hosting university.

Scholars can be asked:

- to lecture students on a topic for a time slot to be agreed upon and corresponding to the scholar's field of expertise and availability
- to assist in the preparation, development and/or implementation of a practical seminar or case study or MOOC development organised with the LIVE students and other national students from the national Master involved in the LIVE Master at the hosting university
- to explore potential collaboration between the LIVE consortium and the home institution of the scholar.
- The lecturers / scholars can apply to the LIVE consortium on their own initiative or can be invited by the LIVE consortium to do so. The application (see details in the next §) should:
- mention the academic year the scholar applies for
- include a motivation pointing out the potential contribution to research and education in scientific or humanities or industrial process related to Immunology, infectiology or vaccinology
- produce an extensive CV, stating publication records, research activities, etc.
- Duration of the visit: 1 week to 3 months
- The selection is organized and proceeded by the LIVE consortium on the basis of:
- elective criteria, i.e. academic performance and credentials of the candidates
- potential contribution to research and education within the LIVE framework
- origin of the home institution of the scholar, according to this order of preference: third-country, developed country from outside EU, country from inside European Union
- potential partnerships with the home institution of the scholar.

Future Scholars: application rules

1.1. Selection criteria

Applicants must either:

- hold a PhD (or be near completion of one) OR a substantial track-record in the industry
- AND be able to demonstrate their ability to teach at a high level.

We equally welcome professors from higher education institutions as well as practitioners from the private sector. Academic / professional profile is the main criteria that will be used to assess applications.

1.2. Scholar's application

Please send us at mylive@univ-lyon1.fr the following documents in ".pdf" format

- A CV, including

- full contact information;
- a short professional profile;
- current employment status;
- academic and professional background (positions and projects);
- teaching track-record and professional references.

- A short (no more than 600 words) cover letter laying out what added-value your course proposal could bring to the programme, and notably with respect to student-centred teaching/lecturing, research activities and academic/professional networking;
- A course proposal, including:
  - Master programme name;
  - course title;
  - learning outcomes (prerequisites, learning objectives and how these objectives fits into the sequence of the LIVE programme);
  - short course syllabus (course duration, themes covered by the courses, course sequence, cases-studies, learning materials, modes of learning, suggested readings…);
  - desired teaching campus (Spain, Belgium, France) and suggested teaching dates. We will consider online course proposals as well.
- Your LinkedIn page if you have one in the cover email.
- Application are to be sent with the subject line:
- "LIVE_Guest_Lecturer_Application_SURNAME_NAME.pdf".
- No handwritten application will be considered.

1.3. Agenda

A **selection committee** is convened each year in March. Applicants will be informed on selection **results at the end of March by email**. Please note that the Academic and Management Board may suggest modification of course contents should your proposal be accepted.
The consortium is an equal opportunity employer. Minority individuals, persons with disabilities, and woman are encouraged to apply. The consortium offer support to women who face difficult circumstances or barriers to their full participation in the programme.

2. HEI network: 22 institutions involved in the LIVE programme

INSTITUTION (founded year) ***contact person, LIVE organising partners** **Selected scholars, QAC member**	**Country**	**Category** **Role in LIVE**	**website**	**2022 Shanghai General rank** **LIFE/MED rank**
Université Libre de Bruxelles (1834) ***Arnaud Marchant**	BELGIUM	PIC associate HEI Invited scholars	www.ulb.ac.be	101-150 101-150
University of Antwerp (2003) ***Peter Delputte**	BELGIUM	PIC associate HEI Local coordinator	www.uantwerpen.be	201-300 151-200
University of Sofia (1913) ***Anastas D. Pashov**	BULGARIA	Invited scholars	www.sofia.edu/	901 - 1000 -
University of British Columbia (1908) ***Tobias R. Kollmann, David Scheiffele**	CANADA	Invited scholars	www.ubc.ca/	44 33
Fudan University Medical School (1905) ***Bin wan**	CHINA	Invited scholars	www.fudan.edu.cn/	67 -
University of Rijeka (1973) ***Stipan Jonjic**	CROATIA	Invited scholars	www.uniri.hr	- -
Ecole Normale Supérieur de Lyon (1987) *Contact: François-Loïc Cosset	FRANCE	PIC associate HEI	www.ens-lyon.eu	301 - 400 -
Université Claude Bernard Lyon 1 (1809) ***Christine Delprat**	FRANCE	PIC associate HEI LIVE coordinator	www.univ-lyon1.fr/	201 - 300 151-200
Université Jean Monnet de Saint-Etienne (1969)	FRANCE	PIC associate HEI	www.univ-st-etienne.fr/	- -

INSTITUTION (founded year) *contact person, LIVE organising partners Selected scholars, QAC member	Country	Category Role in LIVE	website	2022 Shanghai General rank LIFE/MED rank
*Stéphane Paul		Local coordinator		
University of Paris 7 Diderot (1805) ***Anne-Marie Moulin**	FRANCE	Invited scholars	www.univ-paris-diderot.fr/	101 - 150 101-150
National and Kapodistrian University of Athens (1837) ***Vana Papaevangelou**	GREECE	Invited scholars	www.uoa.gr/	301 - 400 -
University of Florence (1321) ***Annarosa Arcangeli**	ITALY	PIC associate HEI	www.unifi.it/	301-400 151-200
Palestine Polytechnic University, Hebron (1978) ***Yaqoub Ashhab**	PALESTINE	Invited scholars	www.ppu.edu/	- -
Université Cheikh Anta Diop, Dakar (1957) ***Tandakha Ndiaye Dieye**	SENEGAL	PIC associate HEI Invited scholars	www.ucad.sn/	- -
Universitat Autònoma de Barcelona (1968) *Paz Martinez	SPAIN	PIC associate HEI Local coordinator	www.uab.es	201-300 151-200
Universitat de Barcelona (1450) *Thomas Stratmann	SPAIN	PIC associate HEI Local coordinator	www.ub.edu	151-200 51-75
Universitat Pompeu Fabra, Barcelona (1990) ***Jose Aramburu**	SPAIN	Invited scholars	www.upf.edu	301-400 -
University of Bristol (1876) ***Adam Finn**	UK	Invited scholars	www.bristol.ac.uk	81 51-75
Johns Hopkins University, Baltimore (1876) ***Stanley Plotkin** Professor Adjunct	USA	E-QAC member Invited scholars	www.jhu.edu	14 4
University of Arkansas Medical Sciences, Little Rock (1927) ***Thomas Kieber-Emmons**	USA	PIC associate HEI Invited scholars	www.uams.edu/	701-800 151-200
University of Pennsylvania (1740) ***Stanley Plotkin** Emeritus Professor of Paediatrics	USA	E-QAC member Invited scholars	www.upenn.edu/	15
Universidad de Oriente (1947): Suyén Rodriguez Pérez	CUBA	Support	http://www.uo.edu.cu/	-

3. LIVE+ 2018-2023: Non-exhaustive list of EACEA-invited Scholars

Family name	Given name	Affiliation	LIVE Semester	LIVE Teaching unit
Aramburu Beltrán	Jose	Universitat Pompeu Fabra , Barcelona, Spain	1	Receptor signaling
Ashhab	Yaqoub	Palestine Polytechnic University, Hebron, West Bank, Palestine	1	Antigen recognition
Bigas	Anna	Institut Hospital del Mar d'Investigacions Mèdiques, Barcelona, Spain	1	Receptor signaling
Brander	Christian	ICREA, AIDS Research Institute (IrsiCaixa), Hospital Germans Trias i Pujol, UAB, Barcelona, Spain	1	Immune response to pathogens

Cardona	Pere Joan	Research Institute Hospital Germans Trias i Pujol (IGTP), UAB, Barcelona, Spain	1	Immune response to pathogens
Engel	Pablo	UB, Barcelona, Spain	1	Antigen recognition
del Portillo	Hernando	Institute of Global Health (ISGlobal) HUGTP, Badalona, Spain	1	Immune response to pathogens
Martínez-Naves	Eduardo	Medicine School, Universidad Complutense, Madrid, Spain	1	Functional anatomy of the immune system
Martinez-Picado	Javier	ICREA, irsiCaixa, UVic-UCC, CiberInfec	1	Immune response to pathogens
Todd	Ian	Medical School, Nottingham University, UK	1	Mechanisms of Immunopathology
Vicente-Manzanares	Miguel	Institute of Cancer Molecular and Cellular Biology- Cancer Research Center, USAL-CSIC, Salamanca, Spain	1	Functional anatomy of the immune system
De Clerq	Norbert	GlaxoSmithKline Vaccines, Wavre, Belgium	2	Vaccine manufacturing, quality, regulatory approval
Dieye	Tandakha Ndiaye	Cheikh Anta Diop University, Dakar, Senegal	2	Host-Pathogen interactions
Finn	Adam	University of Bristol, Bristol, UK	2	Mucosal vaccines
Jonjic	Stipan	University of Rijeka, Rijeka, Croatia	2	CMV interactions with the immune system
Kollmann	Tobias	University of British Columbia, Vancouver, BC, Canada	2	Immune system of newborns, pregnant women and elderly
Marchant	Arnaud	Institute for Medical Immunology, Gosselies, Belgium	2	Immune system in early life, pregnant women and elderly
Papaevangelou	Vana	National and Kapodistrian University of Athens, Athens, Greece	2	Pneumococcal vaccines in healthy and HIV-immunocompromised children
Arcangeli	Annarosa	University of Florence, Florence, Italy	3	Immunology and Cancer
Barnéaud	Lise	Independent journalist	3	Communicating on vaccines and public health
Bonanni	Paolo	University of Florence, Florence, Italy	3	Epidemiology
C.C. Leite	Luciana	Instituto Butantan, Sao Paulo, Brazil	3	Project Management
Czerkinsky	Cecil	Université Côte d'Azur, Valbonne, France	3	Mucosal vaccines
Kieber-Emmons	Thomas	University of Arkansas for Medical Sciences, Little Rock, USA	3	Project management

Kochhar	Sonali	Global Healthcare Consulting, New Delhi, India; Department of Global Health, University of Washington, Seattle, WA, USA.	3	Clinical vaccine development
Moulin	Anne-Marie	Université Paris 7, Paris, France	3	Communicating on vaccines & public health
Pashov	Anastas	Institute of Microbiology, Bulgarian Academy of Sciences, Sofia, Bulgaria	3	Immunology and Cancer: vaccine applications
Plotkin	Stanley A.	University of Pennsylvania, Pennsylvania, USA	3	How vaccines guide the enhancement of the wellbeing of our world
Sahastrabuddhe	Sushant	International Vaccine Institute, Seoul, Republic of Korea	3	Vaccine specific applications
Scheifele	David	University of British Columbia, Vancouver, BC, Canada	3	Project management
Seib	Kate	Griffith University, Gold Coast, QLD, Australia	3	Clinical vaccine development
Tsai	Theodore Fang	Takeda Vaccines, Cambridge, MA, USA	3	Project management
Van Der Pol	Leo	Intravacc, Bilthoven, The Netherlands	3	Vaccine specific applications

4. Abbreviated Curriculum vitae of selected LIVE Scholars

4.1. Aramburu Beltrán Jose

ABBREVIATED SKETCH

Name and Surname	José Francisco Aramburu Beltrán		
Researcher ID		Researcher ID	G-8991-2014
		Orcid number	0000-0001-9279-9523

CURRENT POSITION

Centre	Universitat Pompeu Fabra		
Departmet	Department of Experimental and Health Sciences		
Addresss	Carrer Dr Aiguader, 88, 08003 Barcelona, Spain		
Phone	933160809	e-mail	Jose.aramburu@upf.edu
Position	Profesor agregado (Senior lecturer)		
Academic appointment	Vice-director, Department of Experimental and Health Sciences		
UNESCO codes	2407, 2412, 2415		
Keywords	Immune cells, T lymphocytes, gene expression, stress responses		

Formación académica *(título, institución, fecha)*

Degree	University	Year
BSc Biology	Autónoma de Madrid	1986
PhD Biology	Autónoma de Madrid	1992

BRIEF OUTLINE OF RESEARCH TRAJECTORY

***Synopsis*.** PhD in the Immunology group of Hospital de la Princesa, Madrid (1992, group led by Dr Miguel LópezBotet) and 7 years of postdoctoral (2 at Thomas Jefferson University in Philadelphia, group led by Dr Bice Perussia, and 5 at Harvard Medical School, group led Dr Anjana Rao). Joined Universitat Pompeu Fabra (UPF) in 2000.

***Current research*.** Stress responses allow cells to survive microenvironment disturbances until homeostasis is reestablished. However, stress is not an occasional threat, but in variable forms is intrinsic to life and integrated in the flow of information that cells exchange with their environment. This connection is still poorly understood, but is particularly relevant in the immune system, composed by mobile cells that function in a variety of anatomical niches where they can be exposed to diverse stress sources, but have to maintain adequate responsiveness to relevant signals from tissues and threats such as pathogens. Our current work focuses on understanding how immune cells interpret specific stress signals in different growth and differentiation contexts to modify their functional capabilities in an organism.

***Teaching and management*.** Besides my research activity, I am intensively involved in teaching and academic management at UPF. In addition to direct teaching in different subjects, I have coordinated the research course program for students of the degree in Biology (2003 to 2012), the degree project program in the recently created 4-year degree in Human Biology (2011 to present), and directed (2006 to 2013) the Master in Biomedical Research, created in the European higher education (Bologna) framework. Since 2013 I serve as vice-director of our department.

SELECTED PUBLICATIONS :

Lunazzi, G., Buxadé, M., Riera-Borrull, M., Higuera, L., Bonnin, S., Huerga Encabo, H., Gaggero, S., Reyes-Garau, D., Company, C., Cozzuto, L., Ponomarenko, J., Aramburu, J., López-Rodríguez, C., **2021**. NFAT5 Amplifies Antipathogen Responses by Enhancing Chromatin Accessibility, H3K27 Demethylation, and Transcription Factor Recruitment. J Immunol 206, 2652–2667.

Muhammad, K., Xavier, D., Klein-Hessling, S., Azeem, M., Rauschenberger, T., Murti, K., Avots, A., Goebeler, M., Klein, M., Bopp, T., Sielaff, M., Tenzer, S., Möckel, S., Aramburu, J., López-Rodríguez, C., Kerstan, A., Serfling, E., **2021**. NFAT5 Controls the Integrity of Epidermis. Front Immunol 12, 780727.

Hiramatsu, A., Izumi, Y., Eguchi, K., Matsuo, N., Deng, Q., Inoue, H., Nakayama, Y., Nonoguchi, H., Aramburu, J., López-Rodríguez, C., Kakizoe, Y., Adachi, M., Kuwabara, T., Kim-Mitsuyama, S., Mukoyama, M., **2021**. Salt-Sensitive Hypertension of the Renal Tubular Cell-Specific NFAT5 (Nuclear Factor of Activated T-Cells 5) Knockout Mice. Hypertension 78, 1335–1346.

Huerga Encabo, H., Traveset, L., Argilaguet, J., Angulo, A., Nistal-Villán, E., Jaiswal, R., Escalante, C.R., Gekas, C., Meyerhans, A., Aramburu, J., López-Rodríguez, C., **2020**. The transcription factor NFAT5 limits infection-induced type I interferon responses. J Exp Med 217, jem.20190449.

Aramburu, J., López-Rodríguez, C., **2019**. Regulation of Inflammatory Functions of Macrophages and T Lymphocytes by NFAT5. Front Immunol 10, 535.

Buxadé, M., Huerga Encabo, H., Riera-Borrull, M., Quintana-Gallardo, L., López-Cotarelo, P., Tellechea, M., Martínez-Martínez, S., Redondo, J.M., Martín-Caballero, J., Flores, J.M., Bosch, E., Rodríguez-Fernández, J.L., Aramburu, J., López-Rodríguez, C., **2018**. Macrophage-specific MHCII expression is regulated by a remote Ciita enhancer controlled by NFAT5. J Exp Med 215, 2901–2918.

Tellechea, M., Buxadé, M., Tejedor, S., Aramburu, J., López-Rodríguez, C., **2018**. NFAT5-Regulated Macrophage Polarization Supports the Proinflammatory Function of Macrophages and T Lymphocytes. J Immunol 200, 305–315.

Alberdi, M., Iglesias, M., Tejedor, S., Merino, R., López-Rodríguez, C., Aramburu, J., **2017**. Context-dependent regulation of Th17-associated genes and IFNγ expression by the transcription factor NFAT5. Immunol Cell Biol 95, 56–67.

Boland, B.S., Widjaja, C.E., Banno, A., Zhang, B., Kim, S.H., Stoven, S., Peterson, M.R., Jones, M.C., Su, H.I., Crowe, S.E., Bui, J.D., Ho, S.B., Okugawa, Y., Goel, A., Marietta, E.V., Khosroheidari, M., Jepsen, K., Aramburu, J., López-Rodríguez, C., Sandborn, W.J., Murray, J.A., Harismendy, O., Chang, J.T., **2015**. Immunodeficiency and autoimmune enterocolopathy linked to NFAT5 haploinsufficiency. J Immunol 194, 2551–2560.

López-Rodríguez, C., Aramburu, J., Berga-Bolaños, R., **2015**. Transcription factors and target genes of pre-TCR signaling. Cell Mol Life Sci 72, 2305–2321.

4.2. Arcangeli Annarosa

ANNAROSA ARCANGELI, M.D., Ph.D.

Bio: Prof.Annarosa Archangeli was born in Pistoia on 20/7/1956; graduated in Medicine and Surgery in 1981, specialist in Clinical and Laboratory Hematology in 1984; Researcher in Experimental Pathology in 1990; since 2012 Ordinary Professor of General Pathology at the Faculty of Medicine and Surgery of the University of Florence. Professor Arcangeli has a long experience in research on ion channels and their role in neoplastic transformation. That's why one of the world's hERG experts, and its role in cancer. Following several periods of work at the University of Cambridge, Professor Archangeli also gained considerable biotechnology experience for genetic manipulation of mammals in order to produce genetically modified animals, as well as for the production of monoclonal antibodies through the use of recombinant proteins in E. coli and yeasts. Since 2006 he has been responsible for the Laboratory of Genetics Engineering for the Production of Animal Models (LIGe.MA), a joint laboratory of the University of Florence and of the Toscano Tumori Institute. He is the founding partner of the university spin-off Dival Toscana Srl, set up in 2012. Professor Arcangeli is author of 92 publications in international journals, 15 chapters of books and 4 patents. She has been the speaker of over 300 graduate theses, and supervisor of 28 PhD students, including 2 international students.

Since almost thirty years, Prof. Arcangeli has been involved in studies aimed at defining the biofysical aspects of intracellular signaling by controlling cell growth and differentiation of tumor cells. She contributed to unravel the action mechanism of widely used inducers of tumor cell differentiation, such as the "hybrid polar compounds" (HPC). She also focused on the role of potassium channels, in particular the hERG1 channel, in the governance of the resting potential, cellular ionic homeostasis and cell signaling in normal and cancer cells. In this field, Prof. Arcangeli acquired most of the methodologies required to accomplish this proposal, in particular genome manipulation, biomolecular techniques and patch clamping. Meanwhile, in the last few years she exploited her skill in mouse transgenesis and in vivoexperiments in immunodeficient mice. These studies led to discovery that, in many human and experimental tumors, the resting potential is controlled by hERG1, an important family of recently discovered potassium channels. In addition, Prof. Arcangeli integrates biophysical, biomolecular and genetic approaches to the role of potassium channels and their encoding genes in embryonic development and tumor formation.

SELECTED PUBLICATIONS:

1. Arcangeli, A., Duranti, C., Iorio, J., Lastraioli, E., **2022**. The role of potassium channels in tumours of the gastrointestinal tract: a focus on the human ether-à-go-go related gene 1 channels. J Physiol.

2. Emmi, G., Bagni, G., Lastraioli, E., Di Patti, F., Bettiol, A., Fiorillo, C., Becatti, M., Silvestri, E., Urban, M.L., Emmi, L., Prisco, D., Arcangeli, A., **2022**. A unique circulating miRNA profile highlights thrombo-inflammation in Behçet's syndrome. Ann Rheum Dis 81, 386–397.

3. Lastraioli, E., Ruffinatti, F.A., Bagni, G., Visentin, L., di Costanzo, F., Munaron, L., Arcangeli, A., 2022. The Transcriptional Landscape of BRAF Wild Type Metastatic Melanoma: A Pilot Study. Int J Mol Sci 23, 6898.

4. Arcangeli, A., Ralli, M., De-Giorgio, F., Soave, P.M., Ercoli, L., 2021. The Vatican City State Internal Healthcare System Response to COVID-19 Pandemic: Prevention and Control Strategies. Appl Health Econ Health Policy 19, 141–144.

5. Duranti, C., Iorio, J., Lottini, T., Lastraioli, E., Crescioli, S., Bagni, G., Lulli, M., Capitani, C., Bouazzi, R., Stefanini, M., Carraresi, L., Iamele, L., De Jonge, H., Arcangeli, A., 2021. Harnessing the hERG1/β1 Integrin Complex via a Novel Bispecific Single-chain Antibody: An Effective Strategy against Solid Cancers. Mol Cancer Ther 20, 1338–1349.

6. Lottini, T., Iorio, J., Lastraioli, E., Carraresi, L., Duranti, C., Sala, C., Armenio, M., Noci, I., Pillozzi, S., Arcangeli, A., 2021. Transgenic mice overexpressing the LH receptor in the female reproductive system spontaneously develop endometrial tumour masses. Sci Rep 11, 8847.

7. Montalbano, A., Sala, C., Abrardo, C., Murciano, N., Jahanfar, F., D'Amico, M., Bertoni, F., Becchetti, A., Arcangeli, A., 2021. Data describing the effects of potassium channels modulators on outward currents measured in human lymphoma cell lines. Data Brief 34, 106668.

8. Ralli, M., De-Giorgio, F., Soave, P.M., Ercoli, L., Arcangeli, A., 2021. Mass vaccination campaign for residents and workers and assistance to vulnerable populations during COVID-19 pandemic: The experience of the healthcare services of the Vatican City. Lancet Reg Health Eur 2, 100053.

9. Petroni, G., Bagni, G., Iorio, J., Duranti, C., Lottini, T., Stefanini, M., Kragol, G., Becchetti, A., Arcangeli, A., 2020. Clarithromycin inhibits autophagy in colorectal cancer by regulating the hERG1 potassium channel interaction with PI3K. Cell Death Dis 11, 161.

10. Iorio, J., Duranti, C., Lottini, T., Lastraioli, E., Bagni, G., Becchetti, A., Arcangeli, A., 2020. KV11.1 Potassium Channel and the Na+/H+ Antiporter NHE1 Modulate Adhesion-Dependent Intracellular pH in Colorectal Cancer Cells. Front Pharmacol 11, 848.

4.3. Ashhab Yaqoub

TEACHING UNIT 3: ANTIGEN RECOGNITION					
18/10/2021	8	11:00 h	Bioinformatics applied to Immunogenetics (I)	To be determined	Dr. Yaqoub Ashhab, Biotechnology Research Center, Palestine Polytechnic University
		16:00 h	Bioinformatics applied to Immunogenetics (II)		

*Extract from the **Semester 1** schedule for the 2021-Gilbert LIVE promotion (Fall 2021)*

Yaqoub Ashhab

Bio: Yaqoub Ashhab is an associate professor of molecular biology and bioinformatics at Palestine Polytechnic University and a visiting professor at the Autonomous University of Barcelona. He received his PhD in molecular biology from the Autonomous University of Barcelona in 1998. From 1999-2005 he worked as a postdoctoral fellow and a researcher at the Hebrew University of Jerusalem. In 2013-2014 he spent a sabbatical leave at the Novartis Vaccines and Diagnostics Research Center in Italy. In 2007, he joined Palestine Polytechnic University to lead the establishment of a biotechnology research unit that was funded by the European Union and the World Bank. He also led a national project to establish the Palestine-Korea Biotechnology Center, which was a kind donation from the Korea International Cooperation Agency (KOICA).

During his postdoc, Dr. Ashhab discovered the BIRC7 gene, which has become an important biomarker in various types of cancers. His current research interests are using genomic data to develop diagnostic assay and to design genome-based vaccines. He is currently an active partner in several European research groups and academic collaboration networks. He has authored and co-authored over 40 publications in international peer-reviewed journals and conferences.

Dr. Ashhab is a co-founder and board member of the Palestinian Forum for Medical Research (PFMR), which focuses on capacity building of young biomedical researchers. Furthermore, he has a long-standing interest to address challenges and opportunities of developing countries to harness the potential of the genomic big-data revolution. Towards this goal, he has been working on developing various bioinformatics training courses as well as an educational channel in Arabic on YouTube.

SELECTED PUBLICATIONS:

Aljanazreh, B., Alzatari, K., Tamimi, A., Alsaafeen, M.H., Hassouneh, W., Ashhab, Y., **2022**. Brucellosis re-emergence after a decade of quiescence in Palestine, 2015-2017: A seroprevalence and molecular characterization study. Transbound Emerg Dis 69, e130–e140.

Hisham, Y., Ashhab, Y., Hwang, S.-H., Kim, D.-E., **2021**. Identification of Highly Conserved SARS-CoV-2 Antigenic Epitopes with Wide Coverage Using Reverse Vaccinology Approach. Viruses 13, 787.

Zanella, I., König, E., Tomasi, M., Gagliardi, A., Frattini, L., Fantappiè, L., Irene, C., Zerbini, F., Caproni, E., Isaac, S.J., Grigolato, M., Corbellari, R., Valensin, S., Ferlenghi, I., Giusti, F., Bini, L., Ashhab, Y., Grandi, A., Grandi, G., **2021**. Proteome-minimized outer membrane vesicles from Escherichia coli as a generalized vaccine platform. J Extracell Vesicles 10, e12066.

Hisham, Y., Ashhab, Y., **2018**. Identification of Cross-Protective Potential Antigens against Pathogenic Brucella spp. through Combining Pan-Genome Analysis with Reverse Vaccinology. J Immunol Res 2018, 1474517.

Issa, M.N., Ashhab, Y., **2016**. Identification of Brucella melitensis Rev.1 vaccine-strain genetic markers: Towards understanding the molecular mechanism behind virulence attenuation. Vaccine 34, 4884–4891.

Nesta, B., Valeri, M., Spagnuolo, A., Rosini, R., Mora, M., Donato, P., Alteri, C.J., Del Vecchio, M., Buccato, S., Pezzicoli, A., Bertoldi, I., Buzzigoli, L., Tuscano, G., Falduto, M., Rippa, V., Ashhab, Y., Bensi, G., Fontana, M.R., Seib, K.L., Mobley, H.L.T., Pizza, M., Soriani, M., Serino, L., **2014**. SslE elicits functional antibodies that impair in vitro mucinase activity and in vivo colonization by both intestinal and extraintestinal Escherichia coli strains. PLoS Pathog 10, e1004124.

Nachmias, B., Mizrahi, S., Elmalech, M., Lazar, I., Ashhab, Y., Gazit, R., Markel, G., Ben-Yehuda, D., Mandelboim, O., **2007**. Manipulation of NK cytotoxicity by the IAP family member Livin. Eur J Immunol 37, 3467–3476.

Colobran, R., Adreani, P., Ashhab, Y., Llano, A., Esté, J.A., Dominguez, O., Pujol-Borrell, R., Juan, M., **2005**. Multiple products derived from two CCL4 loci: high incidence of a new polymorphism in HIV+ patients. J Immunol 174, 5655–5664.

Nachmias, B., Ashhab, Y., Bucholtz, V., Drize, O., Kadouri, L., Lotem, M., Peretz, T., Mandelboim, O., Ben-Yehuda, D., **2003**. Caspase-mediated cleavage converts Livin from an antiapoptotic to a proapoptotic factor: implications for drug-resistant melanoma. Cancer Res 63, 6340–6349.

Sabater, L., Ashhab, Y., Caro, P., Kolkowski, E.C., Pujol-Borrell, R., Domínguez, O., **2002**. Identification of a KRAB-containing zinc finger protein, ZNF304, by AU-motif-directed display method and initial characterization in lymphocyte activation. Biochem Biophys Res Commun 293, 1066–1072.

4.4. Barnéaud Lise

An independent science journalist, Lise Barnéoud regularly contributes to various media (Science et Vie, Science et Vie Junior, Le Monde, La Cité des Sciences et de l'Industrie). She is also the author of several books and documentaries for the general public (including L'enfant de tous les possible, France 5, 2018; Immunisés? A new look at vaccines, Editions Premier Parallèle, 2017; Medicine: everything to predict? Editions Belin, 2015). Lise is particularly fond of field investigations and her favorite subjects are medicine, biology and the environment. Her work is regularly recognized with prizes (Grand Prize for health signature trophies, Prize for French scientific journalist 2017, Prize for the best survey of the magazine Lire...) and grants (European Journalism Center, Scam...).

COMMUNICATING ON VACCINES AND PUBLIC HEALTH

Tuesday 22 Sept.
Start : 9:00 Overview : information vs communication How to inform and communicate on a complex and controversial issue such as vaccines? Lise Barneoud
Overview : information vs communication How to inform and communicate on a complex and controversial issue such as vaccines? Lise Barneoud End : 16:00

*Extract from the **Semester 3** schedule for the 2021-Gilbert LIVE promotion (Fall 2022)*

DISTINCTIONS

2021 : Winner of a grant from Investigative Journalism for Europe (IJ4EU) for an investigation about vaccines ordered in Europe

2020 : Winner of a grant from Investigative Journalism for Europe (IJ4EU) for an investigation about pulic money spediture in the fight against Covid-19

2019 : Winner of a grant from European Journalism Center for an investigation about the impact of antibiotic reistance in India

2018 : Winner of a grant from European Journalism Center for an investigation about production of antibiotic in India

2018 : Media Enfance Majuscule prize, for Devenir il ou elle

4.5. Bigas Anna, PhD

TEACHING UNIT 4: RECEPTOR SIGNALLING

26/10/2021	5	17:00 h	NOTCH signaling pathway	Aula Magna, Fac. Biologia. UB	A. Bigas, IMIM

*Extract from the **Semester 1** schedule for the 2021-Gilbert LIVE promotion (Fall 2021)*

Bio: Anna Bigas holds a PhD in Cell Biology from the University of Barcelona (1993). Dr. Bigas has a double affiliation with IMIM (since 2009) and IJC (starting 2020) and she is currently the Scientific Director of CIBERONC.

She has a long-standing interest in hematopoietic stem cells and leukemogenesis. Her work as a post-doctoral fellow (Fred Hutchinson Cancer Research Center, Seattle 1993-1997) was pioneering in identifying a role of Notch in the regulating hematopoietic differentiation, a highly influential contribution to the field of hematopoiesis (PNAS 1996, Mol. Cell. Biol 1998).

Since starting her independent research group in Barcelona, Spain (IRO/IDIBELL, 1998-2008); she has sought to decipher the molecular mechanisms that regulate stem cell commitment, maintenance, differentiation and oncogenic transformation, mainly focused in the hematopoietic system. Through refined genetic studies her group has demonstrated crucial roles for Notch and Wnt in the generation of hematopoietic stem cells in the mouse embryo (Development, 2005, EMBO J 2008, JEM 2012, 2013, 2014, Nat Comm 2015, EMBO J 2020).

In addition, her group has uncovered a role of Notch in regulating programmed cell death in erythroid lineages (Leukemia 2007), and the contribution of Notch and Wnt to T-ALL and CTCL (Leukemia 2016, Leukemia 2018) or intestinal development and cancer (PNAS 2009, Development 2015). More recently, a collaboration with Dr. Lopez-Bigas (IRB) and Dr. Ribera (IJC) groups has contributed to the understanding of leukemic relapse in adult T-ALL (Genome Biology 2020).

SELECTED PUBLICATIONS:

García-Hernández, V., Arambilet, D., Guillén, Y., Lobo-Jarne, T., Maqueda, M., Gekas, C., González, J., Iglesias, A., Vega-García, N., Sentís, I., Trincado, J.L., Márquez-López, I., Heyn, H., Camós, M., Espinosa, L., Bigas, A., **2023**. β-Catenin activity induces an RNA biosynthesis program promoting therapy resistance in T-cell acute lymphoblastic leukemia. EMBO Mol Med 15, e16554.

Robles-Valero, J., Fernández-Nevado, L., Cuadrado, M., Lorenzo-Martín, L.F., Fernández-Pisonero, I., Abad, A., Redín, E., Montuenga, L., Martín-Zanca, D., Bigas, A., Mallo, M., Dosil, M., Bustelo, X.R., **2022**. Characterization of the spectrum of trivalent VAV1-mutation-driven tumours using a gene-edited mouse model. Mol Oncol 16, 3533–3553.

Solé, L., Lobo-Jarne, T., Álvarez-Villanueva, D., Alonso-Marañón, J., Guillén, Y., Guix, M., Sangrador, I., Rozalén, C., Vert, A., Barbachano, A., Lop, J., Salido, M., Bellosillo, B., García-Romero, R., Garrido, M., González, J., Martínez-Iniesta, M., López-Arribillaga, E., Salazar, R., Montagut, C., Torres, F., Iglesias, M., Celià-Terrassa, T., Muñoz, A., Villanueva, A., Bigas, A., Espinosa, L., **2022**. p53 wild-type colorectal cancer cells that express a fetal gene signature are associated with metastasis and poor prognosis. Nat Commun 13, 2866.

Thambyrajah, R., Bigas, A., **2022**. Notch Signaling in HSC Emergence: When, Why and How. Cells 11, 358.

Porcheri, C., Golan, O., Calero-Nieto, F.J., Thambyrajah, R., Ruiz-Herguido, C., Wang, X., Catto, F., Guillén, Y., Sinha, R., González, J., Kinston, S.J., Mariani, S.A., Maglitto, A., Vink, C.S., Dzierzak, E., Charbord, P., Göttgens, B., Espinosa, L., Sprinzak, D., Bigas, A., **2020**. Notch ligand Dll4 impairs cell recruitment to aortic clusters and limits blood stem cell generation. EMBO J 39, e104270.

Sentís, I., Gonzalez, S., Genescà, E., García-Hernández, V., Muiños, F., Gonzalez, C., López-Arribillaga, E., Gonzalez, J., Fernandez-Ibarrondo, L., Mularoni, L., Espinosa, L., Bellosillo, B., Ribera, J.-M., Bigas, A., Gonzalez-Perez, A., Lopez-Bigas, N., **2020**. The evolution of relapse of adult T cell acute lymphoblastic leukemia. Genome Biol 21, 284.

Sinha, R., Porcheri, C., d'Altri, T., González, J., Ruiz-Herguido, C., Rabbitts, T., Espinosa, L., Bigas, A., **2020**. Development of embryonic and adult leukemia mouse models driven by MLL-ENL translocation. Exp Hematol 85, 13–19.

Colomer, C., Margalef, P., Villanueva, A., Vert, A., Pecharroman, I., Solé, L., González-Farré, M., Alonso, J., Montagut, C., Martinez-Iniesta, M., Bertran, J., Borràs, E., Iglesias, M., Sabidó, E., Bigas, A., Boulton, S.J., Espinosa, L., **2019**. IKKα Kinase Regulates the DNA Damage Response and Drives Chemo-resistance in Cancer. Mol Cell 75, 669-682.e5.

Colomer, C., Margalef, P., Gonzalez, J., Vert, A., Bigas, A., Espinosa, L., **2018**. IKKα is required in the intestinal epithelial cells for tumour stemness. Br J Cancer 118, 839–846.

Levy, A.B., Malarkey, W.B., **1988**. Growth hormone and somatomedin-C in bulimia. Psychoneuroendocrinology 13, 359–362.

4.6. Bonanni Paolo

Tuesday 5 July 2022			Location	Extra location
9.00	HPV infection & vaccination	Prof Paolo Bonanni, University of Florence, Italy	F. De Tassiszaal, Hof van Liere, 2nd floor	W. Elsschot/Greshamzaal

*Extract from the **Semester 2** schedule for the 2021-Gilbert LIVE promotion (Summer 2022, Summer School).*

Bio: Paolo Bonanni graduated in Medicine and Surgery (MD) in 1985 and got two specializations in Hygiene and Preventive Medicine at the University of Genoa, Italy. From 1992 to 2000 he was Associate Professor, and since 2000 he is Full Professor of Hygiene in the Faculty of Medicine, University of Florence, Italy. His scientific activity has covered the epidemiology and prevention of infectious diseases, particularly viral hepatitis, diphtheria, tetanus, pertussis, influenza, measles, rubella, varicella, and, most recently, bacterial invasive diseases and HPV, including clinical trials and economic evaluation of vaccination strategies. He has been a member of the National Vaccination Commission of the Italian Ministry of Health, and he acts as an expert consultant for the European Centre for Disease Prevention and Control (ECDC) based in Stockholm. He is also a member of ETAGE (European Technical Advisory Group of Experts), WHO Euro, Copenhagen. He is standing adviser of the Viral Hepatitis Prevention Board (VHPB), an international independent committee of experts in viral hepatitis prevention. Paolo Bonanni is the author or co-author of more than 200 scientific papers published in international and national journals. He received several grants from the Italian Ministry of University on projects regarding vaccine preventable infections and was responsible of a research unit in 4 EU-funded projects named ANTRES (antibiotic resistance in Latin America), EURO-HEPNET (feasibility of a EU network for surveillance of vaccine preventable hepatitis), VACSATC (vaccine safety, attitudes and training) and EURO-HEP SCREEN (screening practices, counselling, referral and treatment for hepatitis B and C in migrants in Europe). Paolo Bonanni is the Director of the University of Florence Post-Graduate Course on 'Vaccines and Vaccination Strategies', established in 2001, 13 editions of which have been followed by over 600 Italian MDs (mostly public health doctors and paediatricians) coming from all over the country.

E-mail: paolo.bonanni@unifi.it

SELECTED PUBLICATIONS

1. Calabrò, G.E., Boccalini, S., Panatto, D., Rizzo, C., Di Pietro, M.L., Abreha, F.M., Ajelli, M., Amicizia, D., Bechini, A., Giacchetta, I., Lai, P.L., Merler, S., Primieri, C., Trentini, F., Violi, S., Bonanni, P., de Waure, C., **2022**. The New Quadrivalent Adjuvanted Influenza Vaccine for the Italian Elderly: A Health Technology Assessment. Int J Environ Res Public Health 19, 4166.

2. Bonanni, P., Zanobini, P., **2021**. Universal and targeted varicella vaccination. Lancet Infect Dis 21, 11–12.

3. Sartor, G., Del Riccio, M., Dal Poz, I., Bonanni, P., Bonaccorsi, G., **2020**. COVID-19 in Italy: Considerations on official data. Int J Infect Dis 98, 188–190

4. Blasi, F., Bonanni, P., Braido, F., Gabutti, G., Marchetti, F., Centanni, S., **2020**. The unmet need for pertussis prevention in patients with chronic obstructive pulmonary disease in the Italian context. Hum Vaccin Immunother 16, 340–348.

5. Bechini, A., Boccalini, S., Ninci, A., Zanobini, P., Sartor, G., Bonaccorsi, G., Grazzini, M., Bonanni, P., **2019**. Childhood vaccination coverage in Europe: impact of different public health policies. Expert Rev Vaccines 18, 693–701.

6. Bonanni, P., Faivre, P., Lopalco, P.L., Joura, E.A., Bergroth, T., Varga, S., Gemayel, N., Drury, R., **2020**. The status of human papillomavirus vaccination recommendation, funding, and coverage in WHO Europe countries (2018-2019). Expert Rev Vaccines 19, 1073–1083.

7. Levi M, Bonanni P, Biffino M, Conversano M, Corongiu M, Morato P, Maio T. Influenza vaccination 2014-2015: Results of a survey conducted among general practitioners in Italy. Hum Vaccin Immunother. **2018** Feb 16:0.

8. Bini C, Grazzini M, Chellini M, Mucci N, Arcangeli G, Tiscione E, Bonanni P. Is hepatitis B vaccination performed at infant and adolescent age able to provide long-term immunological memory? An observational study on healthcare students and workers in Florence, Italy. Hum Vaccin Immunother. **2018** Feb 1;14(2):450-455
9. Bonanni P, Chiamenti G, Conforti G, Maio T, Odone A, Russo R, Scotti S, Signorelli C, Villani A; The 2016 Lifetime Immunization Schedule, approved by the Italian scientific societies: A new paradigm to promote vaccination at all ages. Scientific Board of "Lifetime Immunization Schedule". Hum Vaccin Immunother. **2017** Nov 2;13(11):2531-2537.
10. Bonanni P, Bonaccorsi G, Lorini C, Santomauro F, Tiscione E, Boccalini S, Bechini A. Focusing on the implementation of 21st century vaccines for adults. Vaccine. **2017** Aug 11.

4.7. C.C. Leite Luciana

CURRENT INSTITUTION

Instituto Butantan | Butanan
Centro de Biotecnologia
São Paulo
Current position
Director of Center of Biotechnology

PROJECT MANAGEMENT
Tuesday 15 Nov
Development of Vaccines at the Center of Biotechnology - Luciana Leite (Instituto Butantan – Brazil)
Lecture "How the development of a Schistosoma vaccine can help the development of a COVID vaccine" - Luciana Leite

*Extract from the **Semester 3** schedule for the 2021-Gilbert LIVE promotion (Fall 2022).*

INTRODUCTION

Dr. Leite is an expert in Molecular Biotechnology applied to the Development of Vaccines, especially in recombinant BCG and development of pneumococcal and schistosoma vaccines, having participated in many of the Brazilian genomic projects with over 90 papers and several patents. She has been Vice-President of Fundação Butantan and member of the Developing Countries Vaccine Manufacturers Network. She is currently on the National Committee for Regulation of Genetically Modified Organisms.

SELECTED PUBLICATIONS:

1. Trentini, M.M., Kanno, A.I., Rodriguez, D., Marques-Neto, L.M., Eto, S.F., Chudzinki-Tavassi, A.M., Leite, L.C. de C., **2022**. Recombinant BCG expressing the LTAK63 adjuvant improves a short-term chemotherapy schedule in the control of tuberculosis in mice. Front Immunol 13, 943558.

2. Moraes, L., Trentini, M.M., Fousteris, D., Eto, S.F., Chudzinski-Tavassi, A.M., Leite, L.C. de C., Kanno, A.I., **2022**. CRISPR/Cas9 Approach to Generate an Auxotrophic BCG Strain for Unmarked Expression of LTAK63 Adjuvant: A Tuberculosis Vaccine Candidate. Front Immunol 13, 867195.

3. Rojas Converso, T., Goulart, C., Rodriguez, D., Guerra, M.E.S., Darrieux, M., Leite, L.C.C., **2022**. Immune response induced in mice by a hybrid rPotD-PdT pneumococcal protein. PLoS One 17, e0273017.

4. Barbosa, M.M.F., Kanno, A.I., Pancakova, V., Gonçalves, V.M., Malley, R., Faria, L.P., Leite, L.C.C., **2021**. Optimization of Expression and Purification of Schistosoma mansoni Antigens in Fusion with Rhizavidin. Mol Biotechnol 63, 983–991.

5. Farias, L.P., Vitoriano-Souza, J., Cardozo, L.E., Gama, L.D.R., Singh, Y., Miyasato, P.A., Almeida, G.T., Rodriguez, D., Barbosa, M.M.F., Fernandes, R.S., Barbosa, T.C., Neto, A.P. da S., Nakano, E., Ho, P.L., Verjovski-Almeida, S., Nakaya, H.I., Wilson, R.A., Leite, L.C. de C., **2021**. Systems Biology Analysis of the Radiation-Attenuated Schistosome Vaccine Reveals a Role for Growth Factors in Protection and Hemostasis Inhibition in Parasite Survival. Front Immunol 12, 624191.

6. Marques-Neto, L.M., Piwowarska, Z., Kanno, A.I., Moraes, L., Trentini, M.M., Rodriguez, D., Silva, J.L.S.C., Leite, L.C.C., **2021**. Thirty years of recombinant BCG: new trends for a centenary vaccine. Expert Rev Vaccines 20, 1001–1011.

7. Converso, T.R., Assoni, L., André, G.O., Darrieux, M., Leite, L.C.C., **2020**. The long search for a serotype independent pneumococcal vaccine. Expert Rev Vaccines 19, 57–70.

8. Farias, L.P., Chalmers, I.W., Perally, S., Rofatto, H.K., Jackson, C.J., Brown, M., Khouri, M.I., Barbosa, M.M.F., Hensbergen, P.J., Hokke, C.H., Leite, L.C.C., Hoffmann, K.F., **2019**. Schistosoma mansoni venom allergen-like proteins: phylogenetic relationships, stage-specific transcription and tissue localization as predictors of immunological cross-reactivity. Int J Parasitol 49, 593–599.

9. Tagliabue, A., Leite, L.C.C., Leroy, O.Y., Rappuoli, R., **2019**. Editorial: A Global Perspective on Vaccines: Priorities, Challenges and Online Information. Front Immunol 10, 2556.

10. Zanotto, P.M. de A., Leite, L.C. de C., **2018**. The Challenges Imposed by Dengue, Zika, and Chikungunya to Brazil. Front Immunol 9, 1964.

4.8. Czerkinsky Cecil

Cecil Czerkinsky, DMD, PhD, Dr Med Sci, graduated from Nice and Lyon Medical and Dental Schools (France) in 1978 and 1980 and from Göteborg Medical Faculty (Dr Med Sci) in 1987.

After postdoctoral stays in London (UK) and Birmingham (USA), Czerkinsky established a laboratory of Mucosal Immunology at Göteborg University, which he led from 1989 to 1998. In 1998, Dr Czerkinsky was appointed Research Director at INSERM (French National Institute of Health and Medical Research) in Nice, France and spearheaded a research unit dedicated to Vaccination and Mucosal Immunity. In 2005, he was appointed Deputy Director General of the International Vaccine Institute in Seoul, South Korea, where he served as head of the R&D program. Under his leadership, the IVI R&D program grew from a staff of 18 to 62 and its international extramural funding increased by nearly 800% between 2005 and 2012. The IVI R&D program entailed basic exploratory research in antigen discovery, pathogen discovery, adjuvant discovery, formulation science, clinical (immune monitoring and diagnostics) and experimental (neonatal and mucosal) immunology, molecular epidemiology, and vaccine manufacturing process and technology transfer activities. Programmatic activities included regulatory issues, policy research and establishment of strategic partnerships with academia, industry and national as well as public health agencies. During his mandate at the IVI, Dr Czerkinsky held secondary professorship appointments at Seoul National University (School of Biological Sciences) and at Korea University (Clinical Professor of Immunology).

Dr Czerkinsky has served as adviser for several supranational (WHO) and national (Sweden, France, Korea) health or biomedical research agencies as well as foundations (Gates Foundation (USA), ANRS (France), ESAC (EU), and pharmaceutical corporations.

He has published over 170 articles in the areas of experimental and clinical immunology with a focus in vaccinology and particularly on enteric vaccines and immune modulators (adjuvants, therapeutics). He is inventor or co-inventor of several patents covering products and methods in these areas.

Cecil Czerkinsky currently serves as Research Director at the Institut de Pharmacologie Moléculaire et Cellulaire (IPMC), a joint CNRS-INSERM-University research center located in Sophia-Antipolis (France), and is consultant/adviser for various organizations, including pharmaceutical corporations, biotechnology firms, non-profit research organizations and development aid agencies.

SELECTED PUBLICATIONS:

Logunov, D.Y., Livermore, D.M., Ornelles, D.A., Bayer, W., Marques, E., Czerkinsky, C., Dolzhikova, I.V., Ertl, H.C., **2022**. COVID-19 vaccination and HIV-1 acquisition. Lancet 399, e34–e35.

Martinuzzi, E., Benzaquen, J., Guerin, O., Leroy, S., Simon, T., Ilie, M., Hofman, V., Allegra, M., Tanga, V., Michel, E., Boutros, J., Maniel, C., Sicard, A., Glaichenhaus, N., Czerkinsky, C., Blancou, P., Hofman, P., Marquette, C.H., **2022**. A Single Dose of BNT162b2 Messenger RNA Vaccine Induces Airway Immunity in Severe Acute Respiratory Syndrome Coronavirus 2 Naive and Recovered Coronavirus Disease 2019 Subjects. Clin Infect Dis 75, 2053–2059.

Massa, F., Cremoni, M., Gérard, A., Grabsi, H., Rogier, L., Blois, M., Couzin, C., Hassen, N.B., Rouleau, M., Barbosa, S., Martinuzzi, E., Fayada, J., Bernard, G., Favre, G., Hofman, P., Esnault, V.L.M., Czerkinsky, C., Seitz-Polski, B., Glaichenhaus, N., Sicard, A., **2021**. Safety and cross-variant immunogenicity of a three-dose COVID-19 mRNA vaccine regimen in kidney transplant recipients. EBioMedicine 73, 103679.

Kim, M.J., Moon, Y.-H., Kim, H., Rho, S., Shin, Y.K., Song, M., Walker, R., Czerkinsky, C., Kim, D.W., Kim, J.-O., **2018**. Cross-Protective Shigella Whole-Cell Vaccine With a Truncated O-Polysaccharide Chain. Front Microbiol 9, 2609.

Shim, B.-S., Cheon, I.S., Lee, E., Park, S.-M., Choi, Y., Jung, D.-I., Yang, E., Choi, J.-A., Chun, J.Y., Kim, J.-O., Yun, C.-H., Czerkinsky, C., Song, M.K., **2018**. Development of Safe and Non-Self-Immunogenic Mucosal Adjuvant by Recombinant Fusion of Cholera Toxin A1 Subunit with Protein Transduction Domain. J Immunol Res 2018, 9830701.

Sinha, A., Kanungo, S., Kim, D.R., Manna, B., Song, M., Park, J.Y., Haldar, B., Sharma, P., Mallick, A.H., Kim, S.A., Babji, S., Sur, D., Kang, G., Ali, M., Petri, W.A., Wierzba, T.F., Czerkinsky, C., Nandy, R.K., Dey, A., **2018**. Antibody secreting B cells and plasma antibody response to rotavirus vaccination in infants from Kolkata India. Heliyon 4, e00519.

Sinha, A., Dey, A., Saletti, G., Samanta, P., Chakraborty, P.S., Bhattacharya, M.K., Ghosh, S., Ramamurthy, T., Kim, J.-O., Yang, J.S., Kim, D.W., Czerkinsky, C., Nandy, R.K., **2016**. Circulating Gut-Homing (α4β7+) Plasmablast Responses against Shigella Surface Protein Antigens among Hospitalized Patients with Diarrhea. Clin Vaccine Immunol 23, 610–617.

Dey, A., Molodecky, N.A., Verma, H., Sharma, P., Yang, J.S., Saletti, G., Ahmad, M., Bahl, S.K., Wierzba, T.F., Nandy, R.K., Deshpande, J.M., Sutter, R.W., Czerkinsky, C., **2016**. Human Circulating Antibody-Producing B Cell as a Predictive Measure of Mucosal Immunity to Poliovirus. PLoS One 11, e0146010.

Kim, J.-O., Rho, S., Kim, S.H., Kim, H., Song, H.J., Kim, E.J., Kim, R.Y., Kim, E.H., Sinha, A., Dey, A., Yang, J.S., Song, M.K., Nandy, R.K., Czerkinsky, C., Kim, D.W., **2015**. Shigella outer membrane protein PSSP-1 is broadly protective against Shigella infection. Clin Vaccine Immunol 22, 381–388.

Kraan, H., Vrieling, H., Czerkinsky, C., Jiskoot, W., Kersten, G., Amorij, J.-P., **2014**. Buccal and sublingual vaccine delivery. J Control Release 190, 580–592.

4.9. De Clerck Norbert

Norbert De Clercq

Director, Regulatory Policy & Intelligence Senior Expert at GSK Vaccines

GlaxoSmithKline Vaccines

Katholieke Universiteit Leuven

Leuven, Flandre, Belgique

- 20 years' experience in the vaccines industry at global level
- Unique mix of science and business acumen
- Good analytic skills and sharp strategic thinker and deliverer
- Demonstrated ability to succesfully operate in complex and highly matrixed organisations
- Good interpersonal skills, connecting with people, teams, senior management and experts
- Proven writing & communication skills
- Experienced in leadership with in-line management, cross functional and task force management

- Deep and broad knowledge of vaccines industry, across different functions (commercial, RA, Medical, manufacturing, clinical, BD)
- Polio, hepatitis and pertussis expert

- Positive optimist
- Creative and resourceful solution seeker
- Enterprise thinker and team player striving to make a team succeed on its mission
- Driver to break silo's
- Ability to identify customer needs and exceptional customer focus
- Ability to deliver out of comfort zone and on time
- Ability to focus on bigger picture but still capture relevant details
- Quickly adapt to new and changing tasks, content and environments

4.10. Dieye Tandakha Ndiaye

BIOGRAPHICAL SKETCH

NAME	POSITION TITLE
DIEYE, Tandakha Ndiaye	**Professor in Immunology,** -Université Cheikh Anta Diop, Dakar (UCAD) -Center of Blood Transfusion Dakar (CNTS) -Immunology unit of Bacteriology&Virology lab, Le Dantec
eRA COMMONS USER NAME (credential, e.g., agency login) **DIEYE, Tandakha Ndiaye**	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEARS	FIELD OF STUDY
Immunodeficiency unit (UTI) , Erasme Hospital, Free University of Brussels, (ULB), Belgium		1996 – 2001	Immunology
International Institute of Cellular and Molecular Pathology (ICP),Experimental Medicine Unit (MEXP), Catholic University of Louvain (UCL), Brussels	PhD		Immunology
	Master of	1993 -1995	
	Science		Biology
National Center of Blood Transfusion and Immunology Unit, LBV, Le Dantec University Hospital, Dakar	Resident medical studentship		
			Pharmacy
		1988 -1992	
Cheikh.Anta Diop. University, Dakar, Senegal	Doctoral study in Pharmacy		
		1988 -1992	

Bio: Full Professor in immunology and vaccinology in Cheikh Anta Diop University (UCAD) since 2006. Dr Dieye is currently headed the immunology platform in Le Dantec University teaching hospital (Dakar) and in IRESSEF (Diamniadio, Dakar). Dr Dieye is also head of the National blood transfusion laboratories. He is acting President of the African Society for Immunodeficiencies (ASID). His main activities are focusing on TB, HIV, Malaria, neglected diseases (schistosomiasis) and re-emergent disease (EBOLA) immune responses. He is also WHO expert member of the Technical Advisory Group (TAG) for measles & rubella, member of the Senegalese NITAG and facilitator of the WHO regional Vaccinology course in Africa. Recently he is nominated as a member of WHO Regional Verification Committee (RVC) for measles elimination in Africa. As Immunology investigator on vaccine research, he managed many vaccine trials including TB Phase I and Phase II, Malaria Phase II and EBOLA vaccine Phases I and II.

SELECTED PUBLICATIONS:

Bowyer, G., Sharpe, H., Venkatraman, N., Ndiaye, P.B., Wade, D., Brenner, N., Mentzer, A., Mair, C., Waterboer, T., Lambe, T., Dieye, T., Mboup, S., Hill, A.V.S., Ewer, K.J., **2020**. Reduced Ebola vaccine responses in CMV+ young adults is associated with expansion of CD57+KLRG1+ T cells. J Exp Med 217, e20200004.

Ravenhill, B.J., Kanjee, U., Ahouidi, A., Nobre, L., Williamson, J., Goldberg, J.M., Antrobus, R., Dieye, T., Duraisingh, M.T., Weekes, M.P., **2019**. Quantitative comparative analysis of human erythrocyte surface proteins between individuals from two genetically distinct populations. Commun Biol 2, 350.

Venkatraman, N., Ndiaye, B.P., Bowyer, G., Wade, D., Sridhar, S., Wright, D., Powlson, J., Ndiaye, I., Dièye, S., Thompson, C., Bakhoum, M., Morter, R., Capone, S., Del Sorbo, M., Jamieson, S., Rampling, T., Datoo, M., Roberts, R., Poulton, I., Griffiths, O., Ballou, W.R., Roman, F., Lewis, D.J.M., Lawrie, A., Imoukhuede, E., Gilbert, S.C., Dieye, T.N., Ewer, K.J., Mboup, S., Hill, A.V.S., **2019**. Safety and Immunogenicity of a Heterologous Prime-Boost Ebola Virus Vaccine Regimen in Healthy Adults in the United Kingdom and Senegal. J Infect Dis 219, 1187–1197.

Mbengue, M.A.S., Mboup, A., Ly, I.D., Faye, A., Camara, F.B.N., Thiam, M., Ndiaye, B.P., Dieye, T.N., Mboup, S., **2017**. Vaccination coverage and immunization timeliness among children aged 12-23 months in Senegal: a Kaplan-Meier and Cox regression analysis approach. Pan Afr Med J 27, 8.

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4.11. Finn Adam

Thursday 7 July 2022			Location	Extra location
8.30	Pneumococcal infections and their vaccines	Prof Adam Finn, University of Bristol, UK	F. De Tassiszaal, Hof van Liere, 2nd floor	W. Elsschot/Greshamzaal
10.00	Coffee break		A. Dürerzaal, Hof van Liere	
10.15	Meningococcal infections and their vaccines	Prof Adam Finn, University of Bristol, UK	F. De Tassiszaal, Hof van Liere, 2nd floor	W. Elsschot/Greshamzaal

*Extract from the **Semester 2** schedule for the 2021-Gilbert LIVE promotion (Summer 2022, Summer School).*

Bio:

Adam Finn was born and brought up in Canterbury, UK on a farm. He studied medical sciences and history of art at Cambridge and medicine and surgery at Oxford, qualifying in 1983. He trained in paediatrics in Sheffield, Bristol and Guy's Hospital, London before undertaking a fellowship in Paediatric Infectious Diseases at the Children's Hospital of Philadelphia, USA under Stan Plotkin. He returned to the UK to spend 4 years as a lecturer at the Institute of Child Health and Great Ormond St. Hospital in London under the late Roland Levinsky where he completed a PhD in immunology. Between 1992 and 2001 he was Senior Lecturer at the University of Sheffield, leaving to become

Professor of Paediatrics at the University of Bristol where he is now head of the Section of Infection & Immunity in the School of Clinical Sciences and directs the South West Local Research Network for Medicines for Children. He also leads the paediatric immunology and infectious diseases clinical service for Bristol and the South West region. His main recent research interests continue to relate to elucidation of the nature of naturally acquired mucosal immunity to pneumococcus, meningococcus and other respiratory bacteria and development of tools to assess human immune responses to candidate vaccine antigens. He also leads and supports numerous clinical trials of drugs and medicines in children.

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9. Finn, A., **2018**. Clinical Trials of Influenza Vaccines: Special Challenges. Methods Mol Biol 1836, 567–573.

10. Biggart, R., Finn, A., Marlow, R., **2018**. Lack of impact of rotavirus vaccination on childhood seizure hospitalizations in England - An interrupted time series analysis. Vaccine 36, 4589–4592.

4.12. Jonjic Stipan

Stipan Jonjić, M.D., PhD

Prof. Dr. Stipan Jonjic received his MD from the Faculty of Medicine University of Rijeka, Croatia, in 1976. He made his MSc in the field of immunology of reproduction (1982). After that, he did his PhD thesis in Rijeka and Tuebingen, Germany, working in the field of viral immunology and completing it in 1985. In 1986 he was appointed Assistant Professor at the Faculty of Medicine University of Rijeka and in 1990 he was appointed Associate Professor at the same institution. In 1992 he became Full Professor and since 1996 he has been Head of the Department of Histology and Embryology. In the period from 1999 to 2003 he was Dean of the Faculty of Medicine University of Rijeka. Since 2006 he has been Chair of the newly established Center for Proteomics at the same University.

Stipan Jonjic and his group have been investigating the immune control of cytomegalovirus (CMV) infection for over 30 years. His lab was among the first labs in Croatia that established modern molecular biology research. The major scientific achievement of his group is the characterization of several mechanisms involved in immunosurveillance of acute and latent murine CMV (MCMV) infection. Working in close collaboration with Professor Ulrich Koszinowski (Germany) his group was the first to show that CD4 T cells are essential for control of horizontal virus spread and can compensate the function of CD8 T cells when these cells are depleted. They also showed that antibodies are not essential for primary CMV control and establishment of latency but are powerful mechanism in preventing the spread of recurrent virus. His group provided the first evidence that immunosurveillance of latent CMV infection is organized in a hierarchical and redundant fashion, with not only CD8 T cells but also CD4 T cells and NK cells playing an important role. The group pioneered the work on MCMV evasion of NK cells and characterized several viral proteins involved in downmodulation of NKG2D ligands. More recently, they established the MCMV model of congenital CMV infection of CNS and demonstrated impaired development of cerebellum of infected animals coupled with inflammatory lesions. They have also made a significant contribution to elucidating the recognition of MCMV infected cells by Ly49 NK cell receptors and molecular mechanism involved in specific recognition of infected cells by several activating Ly49 receptors. The group has been the first to show that 'missing-self' dependent NK cell activation plays a role in virus control and characterized viral immunoevasion of this effector mechanism.

Stipan Jonjic has published over 170 papers cited more than 6.000 times and has been invited lecturer to prestigious international conferences and universities. He has worked as a principal investigator or collaborator on more than 40 national and international scientific projects, including those funded by the European Commission and US National Institutes of Health. His scientific work has been characterized by a long and intense international cooperation. For his scientific achievements he was awarded several national and international prizes. He is the first scientist in Croatia that received an ERC Advanced grant (2012). For his lifelong research achievements he was elected member of Leopoldina, the German National Academy of **Sciences (2012).**

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Professor Christine DELPRAT,
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165 Chemin du Grand Revoyet : BP12
69921 OULLINS CEDEX

Rijeka, February 3, 2015.

Re: Leading International Vaccinology Education (LIVE project)

Dear Professor Delprat,

I was honored to be approached by you, as LIVE consortium coordinator, to serve as invited scholar in this LIVE project, a master of Science and multidisciplinary programme that you are organizing together with 5 European Universities , and am hereby declaring my interest and willingness to partake at the LIVE project as invited scholar.
I am working as a full Professor at the Faculty of Medicine, University of Rijeka. I am also a head of the Department of Histology and Embryology and a chair of the Center for proteomics.
My main research interest is immunology and pathogenesis of viral infection. More recently, we are developing new vaccine vectors based on attenuated cytomegalovirus expressing NKG2D ligand Rae-1.
I firmly believe my expertise in the field can strongly contribute to this educational programme, and I stay at your disposal for further activities.

Sincerely,
Stipan Jonjic

Professor and Chair

4.13. Kieber-Emmons Thomas

Thomas Kieber-Emmons Ph.D.

Bio:

Dr. Kieber-Emmons is known for his work on molecular and structural immunology, developing peptide mimetics of carbohydrate antigens as vaccines in both the cancer and pathogen areas, an acknowledged pioneer in this field. Dr. Kieber-Emmons has both translational and clinical trial experience. Dr. Kieber-Emmons has brought the first carbohydrate mimetic peptide through preclinical development to Phase II Clinical Trials in Breast Cancer and in other cancer indications.

Dr. Kieber-Emmons was recruited from the University of Pennsylvania in 2002 to the University of Arkansas for Medical Sciences where he holds the Jossetta Wilkins Chair in Breast Cancer Research, and is a Director at the Winthrop P. Rockefeller Cancer Institute.

SELECTED PUBLICATIONS:

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69921 OULLINS CEDEX

February 08, 2015

Re: International Vaccinology Education (LIVE project)

Dear Professor Delprat,

I am writing to express my enthusiastic support for the LIVE project in Vaccinology that you are organizing together with other European Universities. The multidisciplinary Master of Science program as outlined is very exciting and innovative. This program accomplishes several things. The program provides a vision to foster a multi-disciplinary community to enhance the training of students to address the future needs in the field of vacccinology. The program's mission in training helps to establish and sustain research partnerships among universities and industry that generates scientific knowledge and discovers the tools/technologies to develop the next generation of vaccines. The nature of the program, therefore, promotes collaboration within the vaccinology research community to establish links with Industry. It provides students a focus for discussion on novel technologies/technology development and an immunology toolbox for targeted approaches in vaccinology by exposing students to experts in the field in different venues. This interaction is expected to have the added benefit of facilitating the sharing of knowledge by coordinating current research activities and the sharing of reagents and resources. This novel approach to training can facilitate new research collaborations and initiate collaborative groups for funding.

I would be honored to participate in the LIVE project as an invited scholar. I am a Full Professor in the Department of Pathology and Associate Director for Prevention Research at the Winthrop P. Rockefeller Cancer Institute at the University of Arkansas for Medical Sciences (UAMS). My research expertise is in structural biology/immunology, glycobiology, tumor immunology and immune therapy of cancer by antibodies and vaccines. In recognition of my research in Breast Cancer I received an *Endowed Chair* in 2002. I have lead therapy programs in both Industry and in Academics. At Idec Pharmaceuticals (now Biogen/Idec) I worked on the forerunners of Rituxan. I humanized an anti-CD2 antibody, Siplizumab, an IgG1k class monoclonal antibody that targets CD2 expressing T-and NK-cells and clinically developed by Medimmune for peripheral T cell lymphoma. In the vaccine area we have developed peptides that mimic bacterial, viral and tumor associated carbohydrates using a combination of screening random peptide display

libraries and molecular modeling (structure assisted vaccine design). As a means to convert T independent responses to tumor associated carbohydrate antigens (TACA) to T dependent responses we pioneered the development of carbohydrate mimetic peptides (CMPs) to bridge anti-tumor humoral and cellular responses to TACA. In this regard we have shown that it is possible to define CMPs theoretically using computer-based approaches (drug-design approaches) that validate those identified experimentally. This approach constitutes a novel strategy in developing immunotherapeutics to reduce micrometastases and prevention of recurrence. The US FDA approved IND14715 for a Phase I safety study of one of our CMPs in metastatic breast cancer, which is now complete. This is a true a bench-to-bedside project being a first in man CMP testing of a computer-designed

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immunogen. We are now conducting a Phase II study in Breast Cancer patients in the neoadjuvant setting (at UAMS) and Phase I studies in Lung cancer and Melanoma with this CMP.

Most importantly to the importance of outcomes to the training of Masters of Science students in vaccinology is an example from my own Laboratory. Cecile Artraud, the Medicinal Product development project manager at the Institut Pasteur was trained under my direction as a Master's student in Immunology at UAMS and became study director for the GLP portion in our vaccine development. This training and experience in our program provided her with a great opportunity to find a position in France at a remarkable Institution. I believe that your Live program in Vaccinology will offer opportunities for many talented students to make a difference at Institutions worldwide. Therefore, my expertise in the field is at your disposal.

Sincerely

Thomas Kieber-Emmons PhD
Professor of Pathology
Josetta Wilkins Chair in Breast Cancer Research
Associate Director Prevention Research
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4.14. Kochhar Sonali

Dr Sonali Kochhar, MD, Clinical Associate Professor, Department of Global Health, University of Washington, Seattle, and Medical Director, Global Healthcare Consulting has over 23 years of leadership experience for global vaccines and drugs development in the pharmaceutical industry, product development partnerships and consulting. This includes leading Phase I-IV clinical research, safety studies and implementation research conducted in USA, Europe, Africa and Asia in adult, maternal, adolescent, and pediatric populations; vaccines for infectious diseases (COVID-19, diarrheal and tropical diseases, HIV/AIDS, tuberculosis, influenza, GBS, RSV, MERS, rift valley fever, lassa, nipah, ebola, zika, chikingunya, pertussis, pneumococcal and polio eradication); drugs for cardiovascular, gastrointestinal, endocrinology and infectious diseases; maternal immunization (MI); safety, regulatory and ethical strategies for novel vaccines clinical research and implementation (including for epidemics and pregnant women); introduction of new vaccines; increasing immunization coverage and acceptance; vaccine policy recommendations; pandemics and epidemics preparedness and response; translating research into impactful programs by policy, strategy, advocacy, building functional pharmacovigilance (PV) systems, and healthcare systems (including supply chains) strengthening for immunization programs; clinical trial data sharing; and research with vulnerable and at-risk populations (including pregnant women, children, and immunocompromised). Her work has informed global and country specific vaccine policy recommendations. She has been very involved in national, regional and global response efforts for COVID-19 including the development of COVID-19 vaccines, their safety assessment, policy development and implementation.

Dr Kochhar has led vaccine research programs in Kenya, Uganda, Zambia, The Gambia, South Africa, the United States, Belgium, Germany, India, Bangladesh and Nepal. She provides expertise for vaccine research and development and safety (including for viral vectors, nucleic acid (DNA and RNA), inactivated, live-attenuated, protein vaccines and adjuvants).

She has led multi-country clinical development programs, including the development and management of the clinical and regulatory strategies, clinical development plans, target product profiles, protocols, investigators brochures, care and treatment guidelines, safety assessment, AESI and background rates determination, PV including risk management plans, risk evaluation and mitigation strategies and benefit-risk assessment pre-and post-licensure, and use of innovative clinical trial designs for global vaccine and drug development. She has been responsible for the design, implementation, and evaluation of multi-country vaccine and drug clinical research programs and successfully built and led large international teams for clinical research, registration and post marketing support.

She has co-authored internationally accepted guidance, research standards, protocol templates and case definitions for vaccine clinical research, MI and safety. She is leading the development of an automated template for vaccine benefit-risk assessment. She has led the development of standardized templates for the benefit-risk assessment of vaccines from all platforms, which have been recommended by WHO's Global Advisory Committee on Vaccine Safety (GACVS), and are being widely utilized by vaccine developers. She helped set up and lead the BMGF funded multi-year Global Alignment of Immunization Safety Assessment in Pregnancy (GAIA) network, a critical program for vaccine safety, with partners in over 90 countries. She helped develop 21 novel Maternal and Neonatal Case Definitions for adverse events detection and evaluation, ensuring their applicability in LMICs. The definitions and guidance are being utilized in clinical research, PV, epidemiological studies and implementation research for vaccines and MI globally. She helped develop the "WHO COVID-19 Vaccines Safety Surveillance Manual" which is being used for vaccine pharmacovigilance globally.

For vaccine policy development, she has led the development of the Evidence Considerations for Vaccine Policy (ECVP) framework, to help in early (pre-phase 3 trial design) alignment between regulators, policy

makers and the national, regional and global stakeholders on the clinical trial and observational data or evidence needed for policy and program decisions for new vaccine classes, and help mitigate delays in post-licensure vaccine implementation. The ECVP for TB vaccines for adolescents and adults has been prepared as a test case for the concept.

She is providing support for new vaccines implementation and strengthening vaccine safety activities in LMICs. She is helping set up a Pregnancy Registry for vaccines in a LMIC in Africa and working on a multi-country collaborative COVID-19 vaccine safety research project. She has led immunization programs strengthening by policy and strategy development and healthcare systems strengthening (including evaluation, capacity building, supply chains strengthening, and new technology development and implementation). She has led work on increasing immunization coverage and acceptance in LMICs, and new vaccine introduction, working in close collaboration with the National EPI teams.

Dr Kochhar has helped set up international strategic partnerships and led advocacy for vaccine development with government partners and ministries of health, regulatory bodies (including the FDA, EMA, African and Asian National Regulatory Authorities), ethical committees, scientific organizations, international aid agencies (including BMGF, USAID, Wellcome and MRC), public health authorities, international and bilateral organizations (including WHO, NIH, CDC, World Bank), pharmaceutical companies, key opinion leaders, local communities, patient groups and the media. She has a track-record for launching and coordinating public private vaccine development partnerships to accelerate the development, clinical research, registration, introduction and commercialization of vaccines and drugs of public health importance for LMICs, including with international pharmaceutical companies, and national government partners.

She serves on several advisory panels including the WHO Strategic Advisory Group of Experts on Immunization (SAGE); Chair of the WHO SAGE Working Group (WG) on COVID-19 vaccines; Gavi's Vaccine investment Strategy (VIS) Steering Committee; Co-Chair of the WHO Evidence Considerations for Vaccine Policy (ECVP) WG; Advisory Board for Bill & Melinda Gates Medical Research Institute for the TB Vaccine Phase 3 trial; WHO Technical Advisory Group on the Development of a WHO Roadmap for Global Introduction of New TB Vaccines; Co-Chair of the WHO Technical Advisory Group on GBS Vaccine Development; WHO Expert Steering Committee on Safety Surveillance in Pregnancy in LMICs; Co-Chair of the WHO COVID-19 Ethics & Governance WG; Co-Chair of the WHO Ethics and Monkeypox WG; Independent Review Panels for Clinical Study Data Requests, and Vivli (Centre for Global Clinical Research Data Sharing); International Executive Committees including the International Network of Special Immunization Services (INSIS) Steering Committee; MRC funded Immunizing Pregnant Women and Infants (IMPRINT) network and the co-lead for the challenge on vaccine safety monitoring in LMIC; International Alliance for Biological Standardization, Switzerland's Human Vaccine Committee; and Chair of the Brighton Collaboration Science Board. She is a Research Committee member of the Infectious Diseases Society of America (IDSA); Expert Evaluator for the European Commission; European Science Foundation; Medical Research Council, UK; and Canadian Institutes of Health Research; and a Medical Advisory Panel member of Group B Strep Support, UK. She was an Expert Committee member of the National Academies of Science, Engineering, and Medicine on Clinical Trial Data Sharing; served on the WHO Global Advisory Committee on Vaccine Safety (GACVS) Working Group on COVID-19 Vaccines Safety Preparedness, International Steering Committee of the WHO Consultation on Safety of Immunization in Pregnancy in Mothers and Newborn Children; BMGF's Global Health Clinical Consortium Leadership Group; Expert Working Group of the Wellcome funded PREVENT (Pregnancy Research Ethics for Vaccines, Epidemics, and New Technologies) Project; Core Planning Team of the BMGF funded MI PV programs for LMICs and Harvard University's Multi-Regional Clinical Trial Group.

Kochhar serves as Guest Faculty for International Vaccinology Programs, including the LIVE- Leading International Vaccinology Education Master's Program, Lyon; Global Biologics Development Training-International Vaccine Institute (IVI) and the HIV Vaccine Trials Leadership Development Program, IAVI; as a reviewer for journals like Lancet and Nature etc. and has published over 144 publications and reviews (including in the Lancet, Nature, JAMA, Annual Review of Virology), and book chapters on vaccine research, MI, PV and COVID-19. She is a member of academic societies, including the Infectious Diseases Society of America (IDSA), American Academy of Pediatrics and the European Society of Pediatric Infectious Diseases (ESPID).

She has received multiple awards including the Yale World Fellowship for 2011 (Yale University's International Leadership Program); Vaccinology Fellowship Award for significant achievements in Vaccinology from Fondation Mérieux and University of Geneva; Global Leadership Awards from Eli Lilly & Company, Indianapolis, U.S.A; Bharat Jyoti (Light of India) Award for medical achievements and the Serviers Young Investigator Award from Institut de Recherches Internationales, Servier, France.

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CLINICAL VACCINE DEVELOPMENT
23 Nov
Vaccine life just after licensure: phase IV: *surveillance around the world,* efficacy vs effectiveness *Dr Sonali Kochhar*

Age-sex differences in the global burden of lower respiratory infections and risk factors, 1990-2019: results from the Global Burden of Disease Study 2019. Kyu HH, Vongpradith A,… **Kochhar S** et al. Lancet Infect Dis. 2022 :S1473-3099(22)00510-2. doi: 10.1016/S1473-3099(22)00510-2

*Extract from the **Semester 3** schedule for the 2021-Gilbert LIVE promotion (Fall 2022)*

4.15. Kollmann Tobias

Tobias R. Kollmann, PhD, M.D., SFUW

Bio: Professor Tobias Kollmann is a paediatric infectious diseases physician with a deep passion for making an impact at the convergence of clinical care and fundamental research. He directs the Systems Biology team at Telethon Kids, where multi-disciplinary research aims to direct the early life trajectory towards a healthy, resilient life. Professor Kollmann completed both his MD and PhD at the Albert Einstein College of Medicine, New York, USA. He then conducted his Residency and Fellowship at the University of Washington, Seattle, USA, before joining the Paediatric Infectious Disease Division at the University of British Columbia (UBC), Canada in 2005. Professor Kollmann was Head, Paediatric Division of Infectious Diseases at UBC before relocating to Australia.

For nearly three decades his work has focused on the molecular mechanisms responsible for age-dependent susceptibility to infectious and other diseases and has identified key drivers of immune development in early life. To accomplish this, his team have developed high-throughput, single-cell analysis platforms that allow the extraction of the most information out of the small samples obtainable from young babies. These platforms have now become the technological backbone of several larger cohort studies around the world.

Professor Kollmann is the Chief Executive Officer of the Born Strong Initiative , a collaboration with the Human Vaccines Project (HVP). The Born Strong Initiative is an ambitious program with the goal of globally by 2032 cutting in half the number of preventable stillbirths, preterm births, neonatal infection, and developmental challenges by enhancing the power of maternal and newborn resilience. The Born Strong Initiative will test a range of interventions to see if we can alter the trajectory of pregnancy away from an adverse outcome towards a healthy, full-term pregnancy, enhancing resilience for the newborn for life.

Professor Kollmann also is the Director of both The Precision Health Accelerator that provides complete end-to-end solutions enabling parallel multi-omic analysis, and of The Virtual Academy that brings together the world's leading life science and data science experts.

As a member of the WHO Expert Advisory Group on Non-specific Immunological Effects of Vaccination committee, Professor Kollmann is international leader in vaccinology. He is a member on multiple NIH Review panels associated with the National Institute of Allergy and Infectious Disease (NIAID) including Human Immunology Project Consortium, Centres of Excellence in Translational Research and Cooperative Centres on Human Immunology.

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4.16. Marchant Arnaud

Bio:

Prof. Dr. Arnaud Marchant obtained his MD from the Université libre de Bruxelles in 1990 and has 25 years' experience in vaccine and infectious disease immunology research. He teaches medical immunology at the Université libre de Bruxelles and teaches vaccinology in several courses in Belgium and abroad. Arnaud Marchant is Research Director at the Fund for Scientific Research, Belgium, since 2015, and is the director of the Institute for Medical Immunology since 2016.

His research is focused on immunity to viral infections and vaccines. His main aim is to understand the fundamental rules underlying immunity of the mother-infant dyad in health and disease. His current research is building on systems serology approaches to provide high dimensional analyses of antibody responses to pathogens and vaccines and to inform the development of vaccines and antibody-based therapies. With Pierre Van Damme, Arnaud is currently setting up the European Plotkin Institute for Vaccinology, an initiative of the University of Antwerp and the Université libre de Bruxelles to accelerate the evaluation of vaccines for pandemic and endemic pathogens.

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4.17. Martinez-Picado Javier

TEACHING UNIT 9: IMMUNE RESPONSE TO PATHOGENS

11/10/21	M	11h	IMI14	SEMINAR VIRUS (2) - Javier Martínez Picado - HIV1

*Extract from the **Semester 1** schedule for the 2021-Gilbert LIVE promotion (Fall 2021)*

Bio:

Javier Martinez-Picado is **ICREA Research Professor** at the IrsiCaixa AIDS Research Institute in Barcelona. He is also an associate professor at the University of Vic, and an elected member of the Royal Academy of Science and Arts of Barcelona. He obtained his PhD in Microbiology from the University of Barcelona, where he also lectured as an associate professor. In 1996, he joined **Massachusetts General Hospital** as a research fellow at **Harvard Medical School**, where he devoted himself to HIV/AIDS research. In 2000 he obtained the position of biomedical researcher at the Spanish Health Department appointed to the Hospital Germans Trias in Barcelona. In 2006 he obtained his current ICREA position. Dr. Martinez-Picado serves on different government, academic and industry advisory boards, and has published more than 230 articles on virology and immunology, mainly related to the pathogenesis of HIV, in international journals.

His research is focused on characterizing the immuno-virological mechanisms of viral pathogenesis in human diseases, including HIV-1, Ebola virus, arenaviruses and, more recently, SARS-CoV-2. His group's translational program has the ultimate goal of investigating potential new viral therapeutic strategies, especially in the field of HIV/AIDS, through basic and applied research. They work closely with other national and international biomedical institutes, focusing on three priority research topics: understanding viral persistence to tackle HIV cure strategies, viral pathogenesis mediated by myeloid cells, and extreme phenotypes of virus disease progression. As a result of the COVID-19 pandemic, they have expanded their research to the pathogenesis of SARS-CoV-2, implementing organoid models to assess viral infection and inflammatory responses.

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4.18. Moulin Anne-Marie

COMMUNICATING ON VACCINES AND PUBLIC HEALTH	
Communication	**Monday 19 Sept.**
9:45-11:15	**Teaching Unit presentation** **History of Vaccination** Anne Marie Moulin
11:30-13:00	

*Extract from the **Semester 3** schedule for the 2021-Gilbert LIVE promotion (Fall 2022).*

Bio: Anne Marie Moulin is Emeritus First Class Research Director at the National Center for Scientific Research (CNRS) (SPHERE Unit/Paris 7 University).

A former student of the École Normale Supérieure, agrégé in philosophy, she is a doctor, a former intern in hospitals in the Paris region, specializing in tropical medicine and parasitology. Her PhD focused on the history of immunology.

She joined the CNRS in 1978, spent several years abroad (Berlin, Harvard, MIT in Boston, Johns Hopkins), and in 1991 joined a laboratory of the National Institute for Health and Medical Research (Inserm) working in the social sciences of health (Inserm U158). She was an associate in parasitology in several hospitals and headed the Health/Social Sciences department of the Research Institute for Development, from 1999 to 2002.

Anne Marie Moulin has taken part in numerous missions and research and teaching work in Africa, the Middle East, Asia, the United States and Latin America. She is a member of the scientific council of the French research institutes of the Maghreb pole at the Ministry of Foreign Affairs. She actively participates in the work of the National Agency for Research on AIDS and Hepatitis (ANRS), an organization for which she chaired the board of directors from 2002 to 2006. She teaches public health at Senghor University of Alexandria, Egypt.

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- Marie-Anne Moulin. QUELLE PLACE POUR LA MÉDECINE DANS LA SANTÉ INTERNATIONALE DE DEMAIN ?. Mondes et Cultures, Académie des Sciences d'Outre-mer, 2020, pp.33-40. (hal-03511968)
- Anne Marie Moulin. La médecine au prisme des civilisations. Civilisations : questionner l'identité et la diversité., 2021. (hal-03514082)
- Anne Marie Moulin. La Pandémie de Covid-19 ou le Dialogue entre Histoire et Philosophie. Journal de médecine légale, droit médical, victimologie, dommage corporel, Éditions ESKA – Éditions ALEXANDRE LACASSAGNE, 2020. (hal-03511784)
- Anne-Marie Moulin. Procréer par temps d'épidémie Human reproduction in a pandemic era. Médecine de la Reproduction, 2021, 23 (2), pp.152-158. (10.1684/mte.2021.0845). (hal-03514370)
- Anne Marie Moulin. La gestion de la crise. Quarantaines et confinement d'hier à demain. Actualité et dossier en santé publique, la Documentation française, 2021, pp.20-22. (hal-03514235)
- Anne Marie Moulin. Quarantaines le retour du refoulé. L'Histoire, Sophia Publications, 2020, pp.2-4. (hal-03514148)
- Anne Marie Moulin, Damiano de Facci. Peut-on tirer des leçons de l'Histoire pour la crise du Covid-19 ?. Questions de santé publique, GIS-IReSP, 2021. (hal-03512090)

4.19. Papaevangelou Vana

Associate Professor in Pediatrics,
National and Kapodistrian University of Athens, Athens, Greece

Thursday 7 July 2022			Location	Extra location
11.30	MMR(V): epidemiology and vaccination	Prof Vana Papaevangelou, University of Athens, Greece	F. De Tassiszaal, Hof van Liere, 2nd floor	W. Elsschot/Greshamzaal
13.45	MMR(V): epidemiology and vaccination	Prof Vana Papaevangelou, University of Athens, Greece	F. De Tassiszaal, Hof van Liere, 2nd floor	W. Elsschot/Greshamzaal

*Extract from the **Semester 2** schedule for the 2021-Gilbert LIVE promotion (Summer 2022, Summer School)*

Bio: Professor Vana Papaevangelou is a trained paediatrician, with a special interest in paediatric infectious diseases. After completing her paediatric residency and PID fellowship at the NYU Medical Centre, USA, she returned to Athens Greece and has been a full time clinical paediatrician in a tertiary teaching hospital since 1996. During this time she has been caring for general paediatric cases (40%) and children with infectious diseases (60%). Professor Papaevangelou has been actively involved in the education of medical students and paediatric residents while since 2006, she has also been responsible for the paediatric resident curriculum in her department.

Over the past 20 years, Professor Papaevangelou has been actively involved in multiple research projects. During recent years, her main interests have involved the epidemiology of vaccinepreventable diseases (hepatitis A and B, varicella, measles) and vertical transmission of infections, such as HBV, HCV and CMV. She is a member of the National Hepatitis Board and the Viral Hepatitis Prevention Board. Professor Papaevangelou has published more than 65 papers in peer-reviewed journals.

SELECTED PUBLICATIONS

1. Xirogianni, A., Marmaras, N., Georgakopoulou, T., Papandreou, A., Simantirakis, S., Magaziotou, I., Eliades, A., Getsi, V., Anastasiou-Katsiardani, A., Staikou, E., Markou, F., Argyropoulou, A., Vlachaki, G., Chronopoulou, G., Pangalis, A., Liakopoulou, T., Michos, A., Spoulou, V., Lagona, E., Panagiotakopoulos, G., Petinaki, E., Mantadakis, E., Roilides, E., Galanakis, M., Papaevangelou, V., Tsolia, M., Tzanakaki, G., **2022**. Pneumococcal meningitis in Greece: A retrospective serotype surveillance study in the post-PCV13 era (2010-2020). Vaccine 40, 5079–5087.
2. Ktena, D., Kourkouni, E., Kontopidou, F., Gkolfinopoulou, K., Papadima, K., Georgakopoulou, T., Magaziotou, I., Andreopoulou, A., Tzanakaki, G., Zaoutis, T., Papaevangelou, V., **2022**. Population-based study of influenza and invasive meningococcal disease among Greek children during the COVID-19 pandemic. BMJ Paediatr Open 6, e001391.
3. Kazantzi, M., Prapa, M., Christakou, E., Paraschou, D., Kalabalikis, P., Barbaressou, C., Papaevangelou, V., **2022**. Admissions due to vaccine preventable diseases in a large paediatric intensive care unit in Greece over a 10-year period. J Paediatr Child Health 58, 312–317.
4. Dimopoulou, D., Koutsaki, M., Giorgi, M., Spanou, M., Dinopoulos, A., Papaevangelou, V., **2021**. Effects of measles-containing vaccination in children with severe underlying neurologic disease. Vaccine 39, 1481–1484.
5. Papaevangelou, V., **2021**. Measles vaccination of special risk groups. Hum Vaccin Immunother 17, 5384–5387.
6. Kyriakopoulou, A., Serghiou, S., Dimopoulou, D., Arista, I., Psaltopoulou, T., Dinopoulos, A., Papaevangelou, V., **2020**. Antenatal imaging and clinical outcome in congenital CMV infection: A field-wide systematic review and meta-analysis. J Infect 80, 407–418.
7. Douros, K., Kotzia, D., Kottaridi, C., Giotas, A., Boutopoulou, B., Bozas, E., Matziou, V., Priftis, K., Papaevangelou, V., **2019**. Evidence for respiratory viruses interactions in asymptomatic preschool-aged children. Allergol Immunopathol (Madr) 47, 260–264.
8. Krepis, P., Krepi, A., Argyri, I., Aggelis, A., Soldatou, A., Papaevangelou, V., Tsolia, M., **2018**. Childhood Visceral Leishmaniasis: Distinctive Features and Diagnosis of a Re-emerging Disease. An 11-year Experience From a Tertiary Referral Center in Athens, Greece. Pediatr Infect Dis J 37, 419–423.

9. Critselis, E., Theodoridou, K., Alexopoulou, Z., Theodoridou, M., Papaevangelou, V., **2016**. Time trends in pediatric Herpes zoster hospitalization rate after Varicella immunization. Pediatr Int 58, 534–536.
10. Norberg, P., Depledge, D.P., Kundu, S., Atkinson, C., Brown, J., Haque, T., Hussaini, Y., MacMahon, E., Molyneaux, P., Papaevangelou, V., Sengupta, N., Koay, E.S.C., Tang, J.W., Underhill, G.S., Grahn, A., Studahl, M., Breuer, J., Bergström, T., **2015**. Recombination of Globally Circulating Varicella-Zoster Virus. J Virol 89, 7133–7146.

4.20. Pashov Anastas

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Laboratory of Experimental Immunotherapy
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EDUCATION

1990-1995 Ph.D.(immunology), National Center for Infectious and Parasitic Diseases, Sofia, Bulgaria (information in the databases of NCID, ID Number: 90024909)

1983-1989 M.D. *magna cum laude*, Medical University, Sofia, Bulgaria

POSITION

2010-current Senior research fellow Microbiology at Stephan Angeloff Institute of The Bulgarian Academy of Sciences, Sofia, Bulgaria

2010-2013 CDD at INSERM UMRS 872(Eq.16), Centre de Recherche des Cordelier

2003-2009 Postdoctoral fellow

University of Arkansas for Medical Sciences, Little Rock, AR

2000-2006 Senior research fellow Institute of Biology and Immunology Reproduction at of The Bulgarian Academy of Sciences, Sofia, Bulgaria

1998-2000 Research of scientist Institute of Biology and Immunology Reproduction, at The Bulgarian Academy of Sciences, Sofia, Bulgaria

1996-1997 and 2002 Visiting scientist, U430 INSERM, Paris, France

SELECTED PUBLICATIONS :

Ferdinandov, D., Kostov, V., Hadzhieva, M., Shivarov, V., Petrov, P., Bussarsky, A., Pashov, A.D., **2023**. Reactivity Graph Yields Interpretable IgM Repertoire Signatures as Potential Tumor Biomarkers. Int J Mol Sci 24, 2597. https://doi.org/10.3390/ijms24032597

Kieber-Emmons, T., Pashov, A., **2022**. Living with Endemic COVID-19. Monoclon Antib Immunodiagn Immunother 41, 171–172. https://doi.org/10.1089/mab.2022.29009.editorial

Pashov, A., Murali, R., Makhoul, I., Karbassi, B., Kieber-Emmons, T., **2022**. Harnessing Antibody Polyspecificity for Cancer Immunotherapy. Monoclon Antib Immunodiagn Immunother 41, 290–300. https://doi.org/10.1089/mab.2022.0025

Pashova, S., Balabanski, L., Elmadjian, G., Savov, A., Stoyanova, E., Shivarov, V., Petrov, P., Pashov, A., **2022**. Restriction of the Global IgM Repertoire in Antiphospholipid Syndrome. Front Immunol 13, 865232. https://doi.org/10.3389/fimmu.2022.865232

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Shivarov, V., Petrov, P.K., Pashov, A.D., **2020**. Potential SARS-CoV-2 Preimmune IgM Epitopes. Front Immunol 11, 932. https://doi.org/10.3389/fimmu.2020.00932

Pashov, A., Shivarov, V., Hadzhieva, M., Kostov, V., Ferdinandov, D., Heintz, K.-M., Pashova, S., Todorova, M., Vassilev, T., Kieber-Emmons, T., Meza-Zepeda, L.A., Hovig, E., **2019**. Diagnostic Profiling of the Human Public IgM Repertoire With Scalable Mimotope Libraries. Front Immunol 10, 2796. https://doi.org/10.3389/fimmu.2019.02796

Pashov, A., Hernandez Puente, C.V., Ibrahim, S.M., Monzavi-Karbassi, B., Makhoul, I., Kieber-Emmons, T., **2018**. Thinking Cancer. Monoclon Antib Immunodiagn Immunother 37, 117–125. https://doi.org/10.1089/mab.2018.0014

Pashova, S., Schneider, C., von Gunten, S., Pashov, A., **2017**. Antibody repertoire profiling with mimotope arrays. Hum Vaccin Immunother 13, 314–322. https://doi.org/10.1080/21645515.2017.1264786

Garimalla, S., Kieber-Emmons, T., Pashov, A.D., **2015**. The Patterns of Coevolution in Clade B HIV Envelope's N-Glycosylation Sites. PLoS One 10, e0128664. https://doi.org/10.1371/journal.pone.0128664

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Professor Christine DELPRAT
LIVE Consortium Coordinator
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69921 OULLINS CEDEX

23 February 2015

Re: LIVE project

Dear Professor Delprat,

Thank you for the information on the LIVE program. This project will help assert a consolidated European educational space to fight the brain drain from Europe by promoting a common environment of high standards. LIVE is also an excellent platform for a multidisciplinary approach reaching beyond the boundaries of the field of immunology/infectology/vaccinology and attracting the students to carrier paths that segue into the applied research and industry. Last but not least, I find particularly tempting the opportunity to collaborate in a network of universities and individual researchers.

Having said that, it is obvious I would very much like to participate in this joined effort as an invited scholar. My experience is in immunology having gone from immunophenotying (my Ph.D.) to antibody based immunotherapy (at INSERM U430, Paris with Prof. Kazatchkine) to carbohydrate mimotope tumor vaccines (at UAMS, Little Rock, AR with Prof. Tom Kieber-Emmons) and back to immunogenicity of biopharmaceuticals (in collaboration with Prof. Sebastien Lacroix-Desmazes at INSERM U872 in the framework of the ABIRISK consortium). Currently, our research at the Bulgarian Academy of Sciences is directed to developing techniques for system level antibody repertoire probing as a platform for new diagnostic methods. I am also teaching a course in tumor immunology at the Biology Faculty of Sofia University and this, in terms of tumor vaccines, may be one way I could contribute to the program.

Sincerely Yours,

Anastas Pashov, M.D., Ph.D.
Laboratory of Experimental Immunotherapy

4.21. Plotkin Stanley A.

Dr. Stanley A. Plotkin is Emeritus Professor of the University of Pennsylvania, and Adjunct Professor of the Johns Hopkins University. Until 1991, he was Professor of Pediatrics and Microbiology at the University of Pennsylvania, Professor of Virology at the Wistar Institute and at the same time, Director of Infectious Diseases and Senior Physician at the Children's Hospital of Philadelphia. He maintained laboratories at both CHOP and Wistar. In 1991, Dr. Plotkin left the University to join the vaccine manufacturer, Pasteur-Mérieux-Connaught (now called Sanofi Pasteur), where for seven years he was Medical and Scientific Director, based at Marnes-la-Coquette, outside Paris. He is consultant to vaccine manufacturers, biotechnology companies and non-profit research organizations as principal of Vaxconsult.

Dr. Plotkin attended New York University, where he received a B.A. degree, and then the State University of New York Medical School in Brooklyn, where he received an M.D. degree in 1956. His subsequent career included internship at Cleveland Metropolitan General Hospital, residency in pediatrics at the Children's Hospital of Philadelphia and the Hospital for Sick Children in London and three years in the Epidemic Intelligence Service of the Centers for Disease Control of the US Public Health Service.

He has been chairman of the Infectious Diseases Committee and the AIDS Task Force of the American Academy of Pediatrics, liaison member of the Advisory Committee on Immunization Practices and Chairman of the Microbiology and Infectious Diseases Research Committee of the National Institutes of Health. Dr. Plotkin received the Bruce Medal in Preventive Medicine of the American College of Physicians, the Distinguished Physician Award of the Pediatric Infectious Diseases Society, the Clinical

Virology Award of the Pan American Society for Clinical Virology, the Richard Day Master Teacher in Pediatrics Award of the Alumni Association of New York Downstate Medical College, and the Marshall Award of the European Society for Pediatric Infectious Diseases. In June 1998, he received the French Legion of Honor Medal; in June 2001, the Distinguished Alumnus Award of the Children's Hospital of Philadelphia, in September 2006 the gold medal from the same hospital; the Sabin Gold Medal in May 2002, in September 2004 the Fleming (Bristol) Award of the Infectious Diseases Society of America, in May 2007 the medal of the Fondation Mérieux, in 2009 the Finland Award of the National Foundation for Infectious Diseases and the Hilleman Award of the American Society for

Microbiology, and in 2013 the Career Achievement Award from the Association for Clincal and Translational Medicine, as well as the Caspar Wistar Medal of the Wistar Institute of Biological

Research In 2014 he received the Charles Mérieux Award of the National Foundation for Infectious Diseases and the Sheikh Hamdan (Dubai) Award for Medical Sciences. He was elected to the Institute of Medicine of the National Academy of Sciences in 2005, to the French Academy of Medicine in 2007, to the French Academy of Pharmacy in 2013, and to the Thai Pediatric Infectious Diseases Society in 1915. He is a Fellow of the Infectious Diseases Society of America, the Pediatric Infectious Diseases Society, the American Academy of Pediatrics and the International Society for Vaccines. Dr. Plotkin holds honorary doctoral degrees from the University of Rouen (France) and the Complutense University of Madrid (Spain). Named lectures in his honor have been established at the Pediatric

Academic Societies annual meeting, at the International Advanced Vaccinology Course in Annecy, France, and at the DNA Vaccines Society. A professorship in his name was established at the Children's Hospital of Philadelphia. His bibliography includes over 700 articles and he has edited several books including the standard textbook on vaccines, now in its 6th edition. He developed the rubella vaccine now in standard use throughout the world, is codeveloper of the pentavalent rotavirus vaccine, and has worked extensively on the development and application of other vaccines including anthrax, oral polio, rabies, varicella, and cytomegalovirus.

stanley.plotkin@vaxconsult.com

Emeritus Professor of Pediatrics, University of Pennsylvania
Emeritus Professor of Wistar Institute

Adjunct Professor of International Health, Johns Hopkins University Vaxconsult LLC.

VACCINES DEVELOPED:

Rubella vaccine, RA27/3 strain: now manufactured and used in the United States and throughout the world.

Cytomegalovirus vaccine, Towne strain

Type 3 polio vaccine, WM-3 further attenuated strain

Varicella vaccine, Webster strain

Rabies vaccine, human diploid cell (assisted H. Koprowski and T. Wiktor)

Rotavirus vaccine, WC3 bovine-human pentavalent reassortants (with HF Clark and P Offit),
Now licensed as RotaTeq.

SELECTED PUBICATIONS:

Plotkin, S.A., **2022**. Why We Need Precision Vaccinology. Clin Infect Dis 75, S2–S4. https://doi.org/10.1093/cid/ciac434

Plotkin, S.A., **2022**. Recent updates on correlates of vaccine-induced protection. Front Immunol 13, 1081107. https://doi.org/10.3389/fimmu.2022.1081107

Gilbert, P.B., Donis, R.O., Koup, R.A., Fong, Y., Plotkin, S.A., Follmann, D., **2022**. A Covid-19 Milestone Attained - A Correlate of Protection for Vaccines. N Engl J Med 387, 2203–2206. https://doi.org/10.1056/NEJMp2211314

Goldblatt, D., Alter, G., Crotty, S., Plotkin, S.A., **2022**. Correlates of protection against SARS-CoV-2 infection and COVID-19 disease. Immunol Rev 310, 6–26. https://doi.org/10.1111/imr.13091

Rodrigues, C.M.C., Plotkin, S.A., **2021**. The influence of interval between doses on response to vaccines. Vaccine 39, 7123–7127. https://doi.org/10.1016/j.vaccine.2021.10.050

Earle, K.A., Ambrosino, D.M., Fiore-Gartland, A., Goldblatt, D., Gilbert, P.B., Siber, G.R., Dull, P., Plotkin, S.A., **2021**. Evidence for antibody as a protective correlate for COVID-19 vaccines. Vaccine 39, 4423–4428. https://doi.org/10.1016/j.vaccine.2021.05.063

Meissner, H.C., Plotkin, S.A., **2021**. The Facts About Vaccine Safety. Clin Infect Dis 72, 309–310. https://doi.org/10.1093/cid/ciaa697

Plotkin, S.A., **2021**. Rubella Eradication: Not Yet Accomplished, but Entirely Feasible. J Infect Dis 224, S360–S366. https://doi.org/10.1093/infdis/jiaa530

Plotkin, S.A., **2020**. Tetanus and Diphtheria Boosters. Clin Infect Dis 71, 3266–3267. https://doi.org/10.1093/cid/ciaa359

Rodrigues, C.M.C., Plotkin, S.A., **2020**. Impact of Vaccines; Health, Economic and Social Perspectives. Front Microbiol 11, 1526. https://doi.org/10.3389/fmicb.2020.01526

4.22. Sahastrabuddhe Sushant

Sushant Sahastrabuddhe, MBBS, MPH, MBA

Sushant Sahastrabuddhe, MBBS, MPH, MBA, is the Director of the Enteric Fever Program at IVI. Dr. Sahastrabuddhe has been with IVI for the past 8 years, and is currently leading the typhoid conjugate vaccine development program involving multiple manufacturers. He is a medical graduate from India with a Master's degree in Public Health from Johns Hopkins Bloomberg School of Public Health in Baltimore, Maryland, U.S.A. Before joining IVI, he was working with the National AIDS Research Institute (NARI) under the umbrella of the Indian Council of Medical Research (ICMR) for 4 years. He has been involved in many phase I/II trials, including those for HIV vaccines. During his previous assignment at NARI, he was also involved in the monitoring of the HIV Sentinel Surveillance system under the National AIDS Control Organization (NACO) for the western states of India. Owing to his extensive experience in conducting and managing clinical trials and major public health initiatives, he has authored more than 10 publications and 2 book chapters.

SELECTED PUBLICATIONS:

Saluja, T., Rai, G.K., Chaudhary, S., Kanodia, P., Giri, B.R., Kim, D.R., Yang, J.S., Park, I.-Y., Kyung, S.-E., Vemula, S., Reddy E, J., Kim, B., Gupta, B.P., Jo, S.K., Ryu, J.H., Park, H.K., Shin, J.H., Lee, Y., Kim, H., Kim, J.H., Mojares, Z.R., Wartel, T.A., Sahastrabuddhe, S., **2022**. Immune non-interference and safety study of Vi-DT typhoid conjugate vaccine with a measles, mumps and rubella containing vaccine in 9-15 months old Nepalese infants. Vaccine 40, 5828–5834.

Carlos, J.C., Tadesse, B.T., Borja-Tabora, C., Alberto, E., Ylade, M.C., Sil, A., Kim, D.R., Ahn, H.S., Yang, J.S., Lee, J.Y., Kim, M.S., Park, J., Kwon, S.-Y., Kim, H., Yang, S.-Y., Ryu, J.-H., Park, H., Shin, J.-H., Lee, Y., Kim, J.H., Mojares, Z.R., Wartel, T.A., Sahastrabuddhe, S., **2022**. A Phase 3, Multicenter, Randomized, Controlled Trial to Evaluate Immune Equivalence and Safety of Multidose and Single-dose Formulations of Vi-DT Typhoid Conjugate Vaccine in Healthy Filipino Individuals 6 Months to 45 Years of Age. Lancet Reg Health West Pac 24, 100484.

Chapagain, R.H., Adhikari, S., Giri, B.R., Ray, P., Shrestha, N.J., Prajapati, B., Joshi, P., Pokharel, S., Tamang, S.M., Gupta, B.P., Wartel, T.A., Sahastrabuddhe, S., Rai, G.K., Saluja, T., **2022**. Factors affecting willingness to participate in vaccine clinical trials in an underdeveloped country: perspective from Nepal. Hum Vaccin Immunother 18, 2051413.

Saluja, T., Giri, B.R., Chaudhary, S., Tamrakar, D., Kanodia, P., Palkar, S., Vemula, S., Chinaworapong, S., Kim, B., Gupta, B.P., Kyoung Jo, S., Aspinall, S., Rai, G.K., Steele, D., Kim, J.H., Wartel, T.A., Sahastrabuddhe, S., **2021**. Challenges and opportunities in setting up a phase III vaccine clinical trial in resource limited settings: Experience from Nepal. Hum Vaccin Immunother 17, 2149–2157.

Capeding, M.R., Alberto, E., Sil, A., Saluja, T., Teshome, S., Kim, D.R., Park, J.Y., Yang, J.S., Chinaworapong, S., Park, J., Jo, S.-K., Chon, Y., Yang, S.-Y., Ham, D.S., Ryu, J.H., Lynch, J., Kim, J.H., Kim, H., Excler, J.-L., Wartel, T.A., Sahastrabuddhe, S., **2020**. Immunogenicity, safety and reactogenicity of a Phase II trial of Vi-DT typhoid conjugate vaccine in healthy Filipino infants and toddlers: A preliminary report. Vaccine 38, 4476–4483.

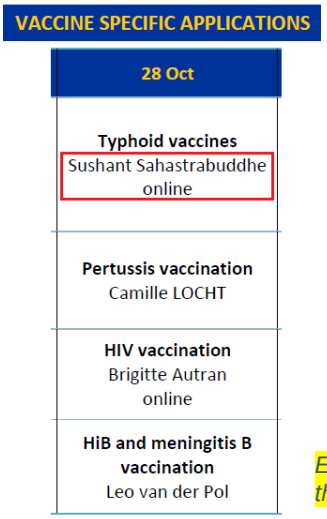
Capeding, M.R., Sil, A., Tadesse, B.T., Saluja, T., Teshome, S., Alberto, E., Kim, D.R., Park, E.L., Park, J.Y., Yang, J.S., Chinaworapong, S., Park, J., Jo, S.-K., Chon, Y., Yang, S.-Y., Ryu, J.H., Cheong, I., Shim, K.-Y., Lee, Y., Kim, H., Lynch, J.A., Kim, J.H., Excler, J.-L., Wartel, T.A., Sahastrabuddhe, S., **2020**. Safety and immunogenicity of Vi-DT conjugate vaccine among 6-23-month-old children: Phase II, randomized, dose-scheduling, observer-blind Study. EClinicalMedicine 27, 100540.

Syed, K.A., Saluja, T., Cho, H., Hsiao, A., Shaikh, H., Wartel, T.A., Mogasale, V., Lynch, J., Kim, J.H., Excler, J.-L., Sahastrabuddhe, S., **2020**. Review on the Recent Advances on Typhoid Vaccine Development and Challenges Ahead. Clin Infect Dis 71, S141–S150.

Medise, B.E., Soedjatmiko, S., Gunardi, H., Sekartini, R., Satari, H.I., Hadinegoro, S.R., Wirahmadi, A., Puspita, M., Sari, R.M., Yang, J.S., Sil, A., Sahastrabuddhe, S., Bachtiar, N.S., **2020**. One-month follow up of a randomized clinical trial-phase II study in 6 to <24 months old Indonesian subjects: Safety and immunogenicity of Vi-DT Typhoid Conjugate Vaccine. Int J Infect Dis 93, 102–107.

Sahastrabuddhe, S., Saluja, T., **2019**. Overview of the Typhoid Conjugate Vaccine Pipeline: Current Status and Future Plans. Clin Infect Dis 68, S22–S26.

Capeding, M.R., Teshome, S., Saluja, T., Syed, K.A., Kim, D.R., Park, J.Y., Yang, J.S., Kim, Y.H., Park, J., Jo, S.-K., Chon, Y., Kothari, S., Yang, S.-Y., Ham, D.S., Ryu, J.H., Hwang, H.-S., Mun, J.-H., Lynch, J.A., Kim, J.H., Kim, H., Excler, J.-L., Sahastrabuddhe, S., **2018**. Safety and immunogenicity of a Vi-DT typhoid conjugate vaccine: Phase I trial in Healthy Filipino adults and children. Vaccine 36, 3794–3801.



*Extract from the **Semester 3** schedule for the 2021-Gilbert LIVE promotion (Fall 2022)*

4.23. Scheifele David

Academic affiliations:
Professor Emeritus/a, Division of Infectious and Immunological Diseases, Department of Pediatrics, Faculty of Medicine, University of British Columbia

Contact: *dscheifele@bcchr.ubc.ca*

Bio:

Prof. David Scheifele, Emeritus Professor of Pediatrics, UBC, co-founder and former director of the Vaccine Evaluation Center in Vancouver. His primary specialty was Pediatric Infectious Diseases. He has been a vaccine clinical scientist for 30 years, publishing over 280 papers on vaccine trials, safety, program evaluation and enhancement. Leadership roles have included chairmanship of the National Advisory Committee on Immunization, co-chairmanship of the IMPACT pediatric surveillance network, founding chair of the Canadian Association for Immunization Research and Evaluation and co-PI of the Pandemic Influenza Research Network. He has been a frequent reviewer for journals and granting agencies. He has received numerous honours and awards, including appointment as an Officer of the Order of Canada for his contributions to child health through immunization. He is currently enjoying retirement, pursuing his interests in boating, painting and teaching boating safety.

Selected publcations:

1. Murad, Y. et al. Clinical Presentations and Outcomes of Children in Canada With Recurrent Invasive Pneumococcal Disease From the IMPACT Surveillance Network. Pediatr. Infect. Dis. J. 41, e166–e171 (**2022**)
2. Abu-Raya, B. et al. Burden of Children Hospitalized With Pertussis in Canada in the Acellular Pertussis Vaccine Era, 1999-2015. J. Pediatr. Infect. Dis. Soc. 9, 118–127 (**2020**)
3. Langley, J. M. et al. Randomized Trial of 2 Schedules of Meningococcal B Vaccine in Adolescents and Young Adults, Canada1. Emerg. Infect. Dis. 26, 454–462 (**2020**)
4. Donken, R. et al. Immunogenicity of 2 and 3 Doses of the Quadrivalent Human Papillomavirus Vaccine up to 120 Months Postvaccination: Follow-up of a Randomized Clinical Trial. Clin. Infect. Dis. Off. Publ. Infect. Dis. Soc. Am. 71, 1022–1029 (**2020**)
5. Scheifele, D. W. Will Infant Hepatitis B Immunization Protect Adults? Pediatr. Infect. Dis. J. 38, S64–S66 (**2019**)
6. Scheifele, D. & Ward, B. Fever prophylaxis can reduce vaccine responses: A caution. Paediatr. Child Health 23, 245–246 (**2018**)
7. Kumar, A. et al. Cellular immune responses of older adults to four influenza vaccines: Results of a randomized, controlled comparison. Hum. Vaccines Immunother. 13, 2048–2057 (**2017**)
8. Boikos, C. et al. Adverse events following live-attenuated intranasal influenza vaccination of children with cystic fibrosis: Results from two influenza seasons. Vaccine 35, 5019–5026 (**2017**)
9. Abu Raya, B., Edwards, K. M., Scheifele, D. W. & Halperin, S. A. Pertussis and influenza immunisation during pregnancy: a landscape review. Lancet Infect. Dis. 17, e209–e222 (**2017**)
10. Marchant, A. et al. Maternal immunisation: collaborating with mother nature. Lancet Infect. Dis. 17, e197–e208 (2017)

4.24. Seib Kate

Research Leader, Institute for Glycomics, Griffith University, Queensland, Australia

Bio: *Kate Seib got her phD in microbiology in 2004 from the University of Queensland, Brisbane, Australia. She worked at Novartis Vaccines, where she was part of the team working on the serogroup B meningococcal vaccine (Bexsero™). Currently, she is the group leader at the Institute for Glycomics and an Associate Editor for the journals Scientific Reports, and BMC Microbiology. Dr Seib's research focuses on understanding how certain bacteria cause disease in humans, with the aim to identify vaccine and drug targets.*

CURRENT WORK

Dr Seib's research focuses on understanding how certain bacteria cause disease in humans, with the aim to identify vaccine and drug targets. She currently works on several pathogenic bacteria, including Neisseria gonorrhoeae (causes the sexually transmitted infection gonorrhea, which can lead to infertility), Neisseria meningitidis (causes sepsis, meningitis), and Moraxella catarrhalis (causes middle ear infections, exacerbations of chronic obstructive pulmonary disease).

Griffith UNIVERSITY Institute for Glycomics
Fighting Diseases of Global Impact

SELECTED PUBLICATIONS:

1. Semchenko, E. A. & Seib, K. L. Outer membrane vesicle vaccines for Neisseria gonorrhoeae. Nat. Rev. Urol. 19, 5–6 (**2022**)

2. Semchenko, E. A., Mubaiwa, T. D., Day, C. J. & Seib, K. L. Role of the Gonococcal Neisserial Heparin Binding Antigen in Microcolony Formation, and Serum Resistance and Adherence to Epithelial Cells. J. Infect. Dis. 221, 1612–1622 (**2020**)

3. Jen, F. E.-C., Semchenko, E. A., Day, C. J., Seib, K. L. & Jennings, M. P. The Neisseria gonorrhoeae Methionine Sulfoxide Reductase (MsrA/B) Is a Surface Exposed, Immunogenic, Vaccine Candidate. Front. Immunol. 10, 137 (**2019**)

4. Seib, K. L. et al. The meningococcal vaccine antigen GNA2091 is an analogue of YraP and plays key roles in outer membrane stability and virulence. FASEB J. Off. Publ. Fed. Am. Soc. Exp. Biol. 33, 12324–12335 (**2019**)

5. Phasevarions of Bacterial Pathogens: Methylomics Sheds New Light on Old Enemies. Atack JM, Tan A, Bakaletz LO, Jennings MP, Seib KL. Trends Microbiol. **2018** Feb 13. pii: S0966-842X(18)30020-9.

6. The glycointeractome of serogroup B Neisseria meningitidis strain MC58. Mubaiwa TD, Hartley-Tassell LE, Semchenko EA, Jen FE, Srikhanta YN, Day CJ, Jennings MP, SeibKL. Sci Rep. **2017** Jul 18;7(1):5693.

7. Gonorrhoea vaccines: a step in the right direction. Seib KL. Lancet. **2017** Sep 30;390(10102):1567-1569.

8. Seib, K., & Jennings, M. (**2016**). Epigenetics of Infectious Diseases. In Medical Epigenetics (pp. 443–458).

9. Seib, K., Scarselli, M., Comanducci, M., Toneatto, D., & Masignani, V. (**2015**). Neisseria meningitidis factor H-binding protein fHbp: a key virulence factor and vaccine antigen. Expert Review of Vaccines, 14(6), 841–859.

10. Seib, K., Oriente, F., Adu-Bobie, J., Montanari, P., Ferlicca, F., Giuliani, M. M., … Delany, I. (**2010**). Influence of serogroup B meningococcal vaccine antigens on growth and survival of the meningococcus in vitro and in ex vivo and in vivo models of infection. Vaccine, 28(12), 2416–2427.

4.25. Tsai Theodore Fang

CURRICULUM VITAE

NAME: Theodore Fang Tsai

PLACE OF BIRTH: Nanking, China

CITIZENSHIP: United States, Naturalized 1957

MARITAL STATUS: Married: Sherry M. Woodruff, 1976
Pediatric Nurse Practitioner
Children's Hospital, Boston

Children: Tobias J. Tsai MD
Acting Chief, Pediatric Physiatry
North Carolina Health

Elizabeth M. Tsai JD MA
Crown attorney, Ontario

CURRENT POSITION: Head, Policy and Scientific Affairs
Takeda Vaccines
40 Landsdowne Street
Cambridge, MA 02139
Ted.tsai@takeda.com

EDUCATION AND TRAINING:

1967-74 Laboratory Assistant in Virology, Collaborative and Field Research Branch, National Institutes of Neurological Diseases and Blindness

1969 Antioch College, B.A., Chemistry

1973 Walter Reed Army Institute of Research, Graduate Course in Tropical Medicine

1974 University of Pennsylvania, M.D.

1974-76 Internship and Residency (PL I, II, and III)
1978-79 Harriet Lane Home Service, Johns Hopkins Hospital

1976-78 Epidemic Intelligence Service Officer, Special Pathogens Branch, Bacterial Diseases Division, Centers for Disease Control
1979-80 Pediatrician, Columbia Medical Plan, Columbia, Maryland

1980-82 Epidemiology Training Program, Office of the Director, National Institutes of Health

1981-82 Johns Hopkins University School of Hygiene and Public Health, M.P.H. **1992-93** Fellow, Clinical Microbiology, Clinical Center, National Institutes of Health

CURRENT AND PREVIOUS POSITIONS

1981-83 Medical Officer, Special Pathogens Branch, Division of Viral Diseases, Centers for Disease Control, Atlanta, Georgia

1983-87 Medical Officer, Immunochemistry Branch,
Division of Vector-Borne Viral Diseases,
Centers for Disease Control
Ft. Collins, Colorado

1988-89 Acting Chief, Lyme Disease Program
Division of Vector-Borne Infectious
Centers for Disease Control
Ft. Collins, Colorado

1989-92 Chief, Arboviral Diseases Branch
Division of Vector-Borne Infectious Diseases
Centers for Disease Control
Ft. Collins, Colorado

1993-99 Assistant Director for Medical Science, Division of Vector-Borne Infectious Diseases, Center for Infectious Diseases, Centers for Disease Control,
Fort Collins, Colorado

1999-2000 Director, Vaccines Research and Development
Wyeth-Lederle Vaccines
Pearl River, New York

2000-2004 Senior Director, Vaccines
Global Medical Affairs
Wyeth Pharmaceuticals
Radnor, PA

2005-2006 Senior Director, Global Medical Affairs
Intercontinental Medical Affairs (Asia-Pacific region)
Wyeth Pharmaceuticals
Collegeville, PA 19426

2006-2007 Head, Medical Affairs, N. America
Novartis Vaccines
Philadelphia, PA 19102

2008- 2014 Chief Medical Officer, Americas
Novartis Vaccines
Cambridge, MA 02139

Head, Global Medical Affairs

Head, Global Scientific Affairs

OTHER PROFESSIONAL RESPONSIBILITIES:

2012-present	Vaccine (Journal)– among top reviewers for the journal
2012-present	Industry representative, VRBPAC
2010-11	Industry representative, alternate VRBPAC
2011	Decade of Vaccines, consultant
2011	Clinical expert, WHO Japanese encephalitis guidelines for live attenuated Japanese Encephalitis vaccines.
2004	Medical affairs representative, Wyeth Access (social responsibility) Committee Wyeth ad hoc Pneumo ADIP committee
2002	Medical Affairs liason, medical expert Wyeth Transmissible Spongiform Encephalopathy Working Group
2001-2003	Wyeth Representative, IFPMA, Influenza Vaccine Supply Task Force
1998-2000	Member, Armed Forces Epidemiology Board
1998-99	Member, CDC IRB
1998-99	Member CDC, Blood safety working group
1997-99	Member CDC, Emerging Infections Program (EIP) steering committee
1997-99	Member CDC, Unexplained deaths project
1996-99	Chair CDC, Tickborne diseases working group
1996-99	Member CDC, EIP Prevention working group
1998	Consultant CDC, Division of Quarantine consultants group
1997-98	Member CDC, Antimicrobial resistance working group
1997-98	Co-Chair, World Health Organization, Flavivirus Steering Committee
1997-98	Member, World Health Organization, Epidemiology and Field Research Steering Committee
1997	Vice Chair, USPHS Asian-Pacific American Officers Committee
1993-94	CLIA Coordinator, DVBID
1983-99	Faculty Affiliate, Depts. of Microbiology and Environmental Health, Colorado State University
1987-92	Commissioned Corps representative, DVBID
1984-87	EEO Representative, DVBID

MEDICAL LICENSE:

Maryland State License
Colorado State License

OTHER AFFILIATIONS:

Member Brighton Collaborations – viscerotropic disease case definition; local adverse events case definition
Consultant, PATH – Japanese encephalitis project
Consultant, W.H.O., Viral Diseases, multiple projects
Consultant, PAHO, Viral Diseases, yellow fever and other
Consultant, Rockefeller Foundation, Viral Diseases, multiple projects
Consultant, International Development Research Centre, childhood vaccines
Consultant, FDA advisory committee, Japanese encephalitis vaccine
Consultant, NRC, Board on Science and Technology for International Development
Consultant, Armed Forces Epidemiology Board
Consultant, Task Force for Child Survival
Consultant, USAID, Epidemic Investigation, vaccine policy
Contributor, American Academy of Pediatrics, Redbook
Advisor, The Medical Letter
Member, Pediatric Infectious Disease Society
Consultant, IOM National Vaccine Plan
Consultant, Decade of Vaccines
VRBPAC – industry representative, alternate, 2009-2013

TEACHING RESPONSIBILITIES

Affiliate Faculty Member, Colorado State University
Departments of Microbiology and Environmental Health, 1983-1992
Visiting Professor of Epidemiology, Shanghai Medical University, 1987-1989.

SELECTED PUBLICATIONS

McCauley, J., Barr, I.G., Nolan, T., Tsai, T., Rockman, S., Taylor, B., **2022**. The importance of influenza vaccination during the COVID-19 pandemic. Influenza Other Respir Viruses 16, 3–6. https://doi.org/10.1111/irv.12917

Hollingsworth, R., El Guerche-Séblain, C., Tsai, T., Vasiliev, Y., Lee, S., Bright, H., Barbosa, P., **2021**. Assessment of the benefits of seasonal influenza vaccination: Elements of a framework to interpret estimates of vaccine effectiveness and support robust decision-making and communication. Influenza Other Respir Viruses 15, 164–174. https://doi.org/10.1111/irv.12786

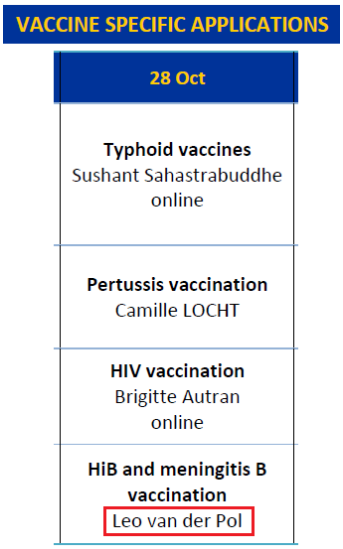
Vesikari, T., Forstén, A., Arora, A., Tsai, T., Clemens, R., **2015**. Influenza vaccination in children primed with MF59-adjuvanted or non-adjuvanted seasonal influenza vaccine. Hum Vaccin Immunother 11, 2102–2112. https://doi.org/10.1080/21645515.2015.1044167

Donis, R.O., Influenza Cell Culture Working Group, Davis, C.T., Foust, A., Hossain, M.J., Johnson, A., Klimov, A., Loughlin, R., Xu, X., Tsai, T., Blayer, S., Trusheim, H., Colegate, T., Fox, J., Taylor, B., Hussain, A., Barr, I., Baas, C., Louwerens, J., Geuns, E., Lee, M.-S., Venhuizen, O., Neumeier, E., Ziegler, T., **2014**. Performance characteristics of qualified cell lines for isolation and propagation of influenza viruses for vaccine manufacturing. Vaccine 32, 6583–6590. https://doi.org/10.1016/j.vaccine.2014.06.045

4.26. Van Der Pol Leo

BIOGRAPHY

Dr. Leo van der Pol is principal scientist at Intravacc, the Institute for Translational Vaccinology, responsible for the development of processes for both bacterial and viral vaccines. From 2005 to 2013 he was Head of Process Develoment at the NVI (Netherlands Vaccine Institute) and RIVM-Vaccinology. Before this he was senior scientist and manager R&D at the pioneer Contract Manufacturing Company Bio-Intermediair that later evolved to DSM Biologics, involved in process development, scale-up, process validation, and trouble shooting. Though monoclonal antibodies were a model product in this 18 years CMO experience, process development was also performed for enzymes, hormones, blood factors, immuno-modulants and vaccines with different expression systems such as hybridoma, myeloma, CHO, BHK, insect-cell/ baculovirus, adherent animal and human cells.
Leo van der Pol holds a PhD in Bioprocestechnology from the Wageningen University & Reseach Centre (WUR). Recent research focuses on vaccine development according to current ICH guidelines (QbD and PAT) and the development of new platform-technology for vaccines.



*Extract from the **Semester 3** schedule for the 2021-Gilbert LIVE promotion (Fall 2022).*

FIELDS OF EXPERTISE AT INTRAVACC

Polio Expertise Center that contribute to the eradication of polio worldwide. We use our proven platform technologies to swiftly develop an affordable, high quality polio vaccine in accordance with EMA and WHO requirements.
Bacterial and Viral vaccines from discovery up to phase I/II clinical trials. We developed advanced technologies and use these, as well as established technologies, such as Outer Membrane Vesicles (OMV), conjugation and regulatory approved Vero cells.
Innovative Concepts, Formulation and Delivery to ensure state of the art expertise and knowledge, we offer innovative research and have several development programs on vaccine delivery and formulation.
Specialist of Quality Assurance to develop or improve vaccine technology.