

4TH ANTIBODY VALIDATION WORKSHOP

Chair: Giovanna Roncador

- 09:00 - 09:20** Registration
- 09:20 - 09:30** Opening introduction
Giovanna Roncador, *Head of the Monoclonal Antibody Unit, CNIO, ES*
- 09:30 - 09:50** The problems arising from poor antibody validation
Fernando Peláez, *Director of the Biotechnology programme, CNIO, ES*
- 09:50 - 10:20** A basic introduction to antibodies
Gholamreza Hassanzadeh, *Head of the VIB Nanobody Core, VUB, BE*
- 10:20 - 11:00** How to approach an antibody project
Alison Banham, *Head of the Nuffield Division of Clinical Laboratory Sciences, University of Oxford, UK*
- 11:00 - 11:30** Coffee break
- 11:30 - 12:10** Principles of antibody validation - examples showing approach to using controls, demonstrating reactivity with recombinant and endogenous target antigen, specificity and reproducibility
Giovanna Roncador, *Head of the Monoclonal Antibody Unit, CNIO, Madrid, ES*
- 12:10 - 12:30** Reproducibility and dissemination of data
Berislav Lisnić, *Department of Histology and Embryology and Center for Proteomics, University of Rijeka, Faculty of Medicine, HR*
- 12:30 - 12:45** Getting accurate and reliable results: from selection to validation
Bruce Hamilton, *Head of New Product Development, Abcam*
- 13:00 - 14:00** Lunch
- 14:00** Interactive Session "Meet the Experts"
1. Meet the expert in immunohistochemistry
2. Meet the expert in flow cytometry
3. Meet the expert in western blotting

MODELLING THE MICROBIOTA- HOST SUPERORGANISM: ANIMAL MODELS AND CORE FACILITIES

Chair: Marion Bérard

- 14:00 - 14:15** INFRAFRONTIER Research Infrastructure
Michael Hagn, *Helmholtz Zentrum München, DE*
- 14:15 - 14:45** Animal models in microbiome research
Axel Kornerup Hansen, *University of Copenhagen, DK*
- 14:45 - 15:15** Gnotobiology core facility: set-up and Innovation
Joana Bom, *Instituto Gulbenkian de Ciência, PT*
- 15:15 - 15:45** Metagenomics, (epi)genomics, (epi)genetics, (meta)transcriptomics, and metabolomics approaches
Mani Arumugam, *University of Copenhagen, DK*
- 15:45 - 16:00** Panel discussion

Keynote

Hall: Refter

OPENING CTLS2018@VIB & KEYNOTE

- 16:45 - 17:00** Welcome & overview of the conference and housekeeping issues
Patrick England, President of CTLS
Chris Guérin, Member CTLS Executive Council and lead organizer
- 17:00 - 18:00** How CDKs Control the Cell Cycle
 Keynote: **Paul Nurse**, *The Francis Crick Institute, UK*
 Chair: Jo Bury (Managing Director, VIB, BE)
- 18:30 - 19:30** Belgian Beer tasting in the "Great Butchers' Hall"
 (Address: Groentenmarkt 7, Ghent)

Plenary session 1

Hall: Refter

- 09:00 - 09:30** Welcome and registration

BIG DATA

Chair: Alexander Botzki and Sarah Butcher

- 09:30 - 10:15** Big Data in the Life Sciences- the challenges for a Bioinformatics Core Facility
Sarah Butcher, *Imperial College London, UK*
- 10:15 - 10:40** The ELIXIR Compute Platform - An Environment for Analysing Life-Science data
Steven Newhouse, *EMBL-EBI, UK*
- 10:40 - 11:10** Coffee break
- 11:10 - 11:35** Handling the Microscopy Data Deluge
Ian Henry, *Max Planck Institute of Molecular Cell Biology and Genetics, DE*
- 11:35 - 12:00** Machine learning approaches for cytometry data
Sofie Van Gassen, *VIB-UGent Center for Inflammation Research, BE*
- 12:00 - 12:15** Selected from abstracts (6): Development of a bioinformatics pipeline for routine analysis of whole genome sequencing data for typing of *N. meningitidis* in a public health context
Kevin Vanneste, *Sciensano, BE*
- 12:15 - 12:20** Sponsored talk: Bring high resolution, high content imaging to life
Ana Clara Fernandes, *Key Account Manager - Nikon Instruments, BE*
- 12:20 - 13:15** Lunch

Parallel workshops

Parallel sessions

Hall: Oude Infirmierie

COMPANY WORKSHOPS PART I

- 13:15 - 14:00** Workshop 1: Merck: CCD Based Flow Cytometry Enhances the Detection of Small Particles and Rare Events Enabling Emerging Applications in Immunology and Oncology
Hall:
Oude Infirmierie
Peter Rhein, *Imaging Cytometry Application Specialist, Merck Group, DE*
- 13:15 - 14:00** Workshop 2: Agilent: Equipment Usage Tracking and Access Control using iLab Kiosk and Interlock
Hall:
Blancquaert
Jesper Hojlund, *IT solutions architect, Agilent Technologies, DK*
- 13:15 - 14:00** Workshop 3: Zeiss: Comparison of Airyscan platform with GPU based deconvolution approach for fluorescence imaging: when and how to use it?
Hall:
Vermeylen
Uroš Kržič, *Senior Application Consultant, Carl Zeiss Microscopy, DE*
Cicerone Tudor, *Product&Application Specialist, Carl Zeiss Microscopy, BE*

You can find more info on these workshops at page 190

TRACK I: EMERGING MODEL SYSTEMS

Chair: Marion Bérard & Valentina Adami

- 14:15 - 15:00** Multi-Organ-Chip Technologies: Towards a Paradigm Shift in Substance Testing?
Reyk Horland, *VP Business Development, TissUse GmbH, DE*
- 15:00 - 15:25** Access to Gnotobiotic Animal Models and Related Platforms in Europe: Current Situation and Perspectives
Marion Bérard, *Institut Pasteur, FR*
- 15:25 - 16:00** Coffee break
- 16:00 - 16:25** World's 1st Extracellular Vesicle Core Facility – Why?
Pia Siljander, *University of Helsinki, FI*
- 16:25 - 16:40** Selected from abstracts (18): A new facility focused on mass-spectrometry based proteomics for drug discovery and development
Massimiliano Gaetani, *Karolinska Institutet, SE*
- 16:25 - 16:40** Selected from abstracts (24): Simultaneous analysis of glucocorticoids and androgens in small volumes of mouse plasma by liquid chromatography triple quadrupole mass spectrometry
Natalie Homer, *University of Edinburgh, UK*

Parallel sessions

Hall: Vermeylen

TRACK 2: MULTI SCALE/ MULTI DISCIPLINARY MESOSCOPIC METHODS

Chair: Spencer Shorte & Ralf Palmisano

- 14:15 - 15:00** Selected from abstracts (45): A Bioinformatic Framework to Assess the Transcriptomic Response of Species to Environmental Toxins
Siavash Nazari, *University of Guelph, CA*
- 14:30 - 15:15** Imaging Molecular Dynamics: from Cell Biology to Animal Models
Kurt Anderson, *CALM, Francis Crick Institute, UK*
- 15:15 - 15:30** Selected from abstracts (19): EMBL Sample Preparation and Characterization Facility: High-throughput crystallization and SAXS
Maria Garcia Alai, *EMBL Hamburg, DE*
- 15:30 - 16:00** Coffee break
- 16:00 - 16:25** CLEM-Imaging along the resolution spectrum
Saskia Lippens, *VIB Bioimaging Core, BE*
- 16:25 - 16:50** Imaging across Scales in a Multi-Disciplinary Environment
Ralf Palmisano, *Optical Imaging Center Erlangen, DE*

Parallel sessions

Hall: Blancquaert

TRACK 3: RESEARCH AND DEVELOPMENT IN CFS

Chair: Chris Guérin & Julia Fernandez-Rodriguez

- 14:15 - 14:40** Swedish Research Infrastructure Fellows
Julia Fernandez-Rodriguez, *University of Gothenburg, SE*
- 14:40 - 15:05** How much Research and Development should a Core Facility do?
Doris Meder, *Berlin Institute of Health, DE*
- 15:05 - 15:30** Clear Divisions between Tech Development and Running an Open Core
Peter O'Toole, *University of York, UK*
- 15:30 - 16:00** Coffee break
- 16:00 - 16:30** Moderated discussion

Parallel sessions

Hall: Refter

TRACK 4: DATA MANAGEMENT

Chair: Geert Van Minnebruggen & Ljudmila Borisenko

- 14:15 - 15:00** Dealing with the Challenges of Large Life Science Data Sets from Acquisition to Archive
Dean Flanders, *Friedrich Miescher Institute, CH*
- 15:00 - 15:25** Comprehensive linkage of biomaterials and data: a biobank perspective
Michael Hummel, *Charite University Hospital/Berlin Institute of Health, DE*
Christian Stephan, *Managing partner, Kairos, DE*
- 15:25 - 16:00** Coffee break
- 16:00 - 16:25** Stem cells and its challenging path in the digital world
Lukas Cyganek, *University Medical Center Göttingen, DE*
- 16:25 - 16:50** Data management needs in translational research project
Janna Saarela, *FIMM, FI*
- 16:50 - 17:05** Selected from abstracts (13): Platform-Manager: an open-source web application for facilities management developed in Biogenouest
Christian Diot, *Biogenouest, FR*

Social activity

Hall: Floor 1 + Kapitell

POSTER SESSION AND RECEPTION

- 17:00 - 18:30** Poster session (Floor 1) & Reception (Ground floor, floor 1)
- 18:30 - 20:00** CTLS EC meeting (Oude Infirmerie)

Plenary session 2

Hall: Refter

KEYNOTE

Chair: Spencer Shorte

- 08:30 - 09:00** Welcome coffee
- 09:00 - 10:00** No Core is an Island
Keynote: **Frances Weis-Garcia**, *Memorial Sloan Kettering Cancer Center, US*
- 10:00 - 10:25** Coffee break

INTERNATIONAL ALLIANCES, NETWORKS AND COOPERATION

Chair: Patrick England and Monica Morales Ballus

- 10:25 - 11:10** Global-Reach Potential of EU Research Infrastructures: the case of EMBRC-ERIC
Iliaria Nardello, *European Marine Biological Resource Center, FR*
- 11:10 - 11:35** How to sustain the European leadership in vaccine research and development: the need of an integrated European infrastructure
Odile Leroy, *European Vaccine Initiative, DE*
- 11:35 - 12:00** Core for Life and EU-LIFE: A tale of two European Alliances
Monica Morales Ballus, *CRG, ES*
Geert Van Minnebruggen, *VIB, BE*
- 12:00 - 12:15** Selected from abstracts (5): The P4EU (Protein Production and Purification Partnership in Europe) Network
Nick Berrow, *IRB Barcelona, ES*
- 12:15 - 12:30** Selected from abstracts (14): International Associations for Core Facilities (IACF): A Global Collaborative Partnership
Joseph Dragavon, *University of Colorado Boulder, US*
- 12:30 - 12:35** Sponsored talk: Streamlining Label-free Affinity Analysis for Accelerated Lead Screening, Characterization, Optimization and Final Selection
Helge Schnerr, *Marketing Manager EMEA, DE*
- 12:35 - 13:15** Lunch

Parallel workshops

COMPANY WORKSHOPS PART 2

- 13:15 - 14:00** Workshop 4: 10xGenomics: Biology at High Definition with 10x Genomics
Hall: Vermeylen
Guido van de Worp, Sales Executive Benelux
- 13:15 - 14:00** Workshop 5: Takara Bio Europe: SMARTer solutions for single-cell transcriptomics and whole genome amplification with SMART-Seq and PicoPLEX technologies
Hall: Oude Infirmerie
Matthieu Pesant, NGS product manager - scientific support specialist, Takara Bio Europe, FR
- 13:15 - 14:00** Workshop 6: Olympus Europe: Latest Developments in Confocal Microscopy for Live Samples
Hall: Prior
Bülent Peker, Product Manager of Laser Scanning Microscopy, Olympus Europa SE & Co. KG
Herve Gautier, Specialist Microscopy and Imaging, Olympus, FR
- 13:15 - 14:00** Workshop 7: Idea Elan: Book Instruments in 2 clicks and Request Services in a few clicks with Infinity. Hands ON Workshop with Infinity Mobile and Web App.
Hall: Blancquaert
Elango Masilamani, Idea Elan LLC, USA

You can find more info on these workshops at page 194

Parallel sessions

Hall: Blancquaert

TRACK 5: SINGLE CELL TECHNOLOGIES

Chair: Stefaan Derveaux and Thomas Conrad

- 14:15 - 14:40** Scalable Workflows for Single Cell Genomics Projects
Cornelius Fischer, Berlin Institute of Health, DE
- 14:40 - 15:05** Single-Cell RNA Sequencing to Resolve Tissue Complexity
Holger Heyn, CNAG-CRG, ES
- 15:05 - 15:20** Selected from abstracts (22): Multiplexed protein maps link subcellular organization to cellular states
Gabriele Gut, University of Zurich, CH
- 15:20 - 16:00** Coffee break
- 16:00 - 16:45** Single-cell multi-omics to study the biology of cellular heterogeneity in health and disease
Thierry Voet, KU Leuven, BE
- 16:45 - 17:00** Selected from abstracts (56): High-throughput, full-length, single-cell RNA sequencing
Matthieu Pesant, NGS product manager - scientific support specialist, Takara Bio Europe, FR

Parallel sessions

Hall: Vermeylen

TRACK 6: QC RIGOR AND REPRODUCIBILITY

Chair: Achim Treumann and Francis Impens

- 14:15 - 14:50** Standardized analysis of extracellular vesicles in liquid biopsies
An Hendrix, Ghent University, BE
- 14:50 - 15:25** Qcloud: A cloud-based quality control system for proteomics laboratories.
Eduard Sabido Aguade, CRG/UPF Proteomics Unit, ES
- 15:30 - 16:00** Coffee break
- 16:00 - 16:25** Quality Control at the Swedish National Genomics Infrastructure
Phil Ewels, NGI, SciLifeLab, SE
- 16:25 - 16:40** Selected from abstracts (49): Implementing a standardized sample quality control (QC) service: The way forward to improve results quality and reproducibility in your institution
Bertrand Raynal, Institut Pasteur, FR
- 16:40 - 16:55** Selected from abstracts (39): The ABRF's Workflow Interest Network (WIN) and its 2018 project
Achim Treumann, NUPPA (Newcastle University Protein and Proteome Analysis), UK

Parallel sessions

Hall: Refter

TRACK 7: CAREER PATH FOR CF STAFF

Chair: Nadine Utz and Saskia Lippens

- 14:15 - 14:40** Many roads to a core facility career
Saskia Lippens, VIB Bioimaging Core, BE
Nadine Utz, German Society for Microscopy and Image Analysis, DE
- 14:40 - 15:00** A career in core facilities in life sciences institutes: a different path?
Marijke Lein, VIB Headquarters, BE
- 15:00 - 15:20** Promoting career paths in (imaging) core facilities
Elisa Ferrando-May, University of Konstanz Bioimaging Center, DE
- 15:20 - 15:35** The Technician Commitment: Ensuring status & opportunity for technical roles across UK research, teaching & innovation
Kelly Vere, Higher Education Engagement Manager, Science Council, UK
- 15:35 - 16:00** Coffee break
- 16:00 - 16:55** Moderated discussion

Parallel sessions Hall: Oude Infirmierie

Social activity

TRACK 8: INTEGRATING CF INFRASTRUCTURES CREATING VALUE

Chair: Mery Piña and Cath Brooksbank

- 14:15 - 14:35** Quality management in distributed research infrastructures
Michael Raess, *Institute of Experimental Genetics, DE*
- 14:35 - 14:55** EMBRIC: accelerating innovation in (blue) biotechnology
Mery Piña, *Pasteur Institute, FR*
- 14:55 - 15:15** Fostering interactions between core facilities and research infrastructures
Cath Brooksbank, *EMBL-EBI, UK*
- 15:25 - 16:00** Coffee break
- 16:00 - 16:15** Selected from abstracts (50): TRACE: the Belgian PDX platform boosting cutting edge cancer research
Lara Rizzotto, *TRACE, Department of Oncology, LKI, KU Leuven, BE*
- 16:15 - 16:30** Selected from abstracts (29): NEUBIAS - The Network of European Biologie AnalystS
Sebastian Munck, *VIB Center for the Biology of Disease, KU Leuven*
- 16:30 - 16:45** Selected from abstracts (42): Cores Without Borders - Sharing Core Facility Expertise Across Borders: A Case for Engaging CTLs, ABRF with Core Facilities in Africa
Claudius Mundoma, *Florida State University, US*

Plenary session Hall: Refter

- 17:00 - 18:00** CTLs Annual General meeting (for all participants)

CONFERENCE DINNER

- 18:00** Gather@ registration desk
- 18:15 - 19:00** Boat tour along the waterways of Ghent (If registered for the conference dinner - more info see practical details)
- 19:00 - 22:00** Conference dinner @ restaurant "Oude Vismijn"



Plenary session 3

Hall: Refter

KEYNOTE

Chair: Geert Van Minnebruggeen

- 09:30 - 09:55** European Science Foundation and Science Connect services
Jean-Claude Worms, *Chief Executive of the European Science Foundation (ESF), FR*
- 09:55 - 10:15** MERIL: a digital platform for accessing information about European Research Infrastructures
Julija Baginskaite, *Junior Science Officer with ESF Science Connect, FR*

CONTRACTS, AGREEMENTS AND EXPECTATIONS: CF INTERACTIONS WITH GOVERNMENT, CLIENTS, INSTITUTIONS AND EACH OTHER

Chair: Marc Bickle and Josh Rappaport

- 10:15 - 10:35** CF interactions with government, clients, institutions and each other
Marc Bickle, *MPI- Molecular Cell Biology and Genetics, DE*
- 10:35 - 11:00** Successfully managing vendor relationships
Josh Rappaport, *Northwestern University, US*
- 11:00 - 11:25** Technologies and Core Facilities: A public funder's perspective from the biosciences
Amanda Collis, *Biotechnology and Biological Sciences Research Council, Research and Innovation, UK*
- 11:25 - 11:45** Coffee break
- 11:45 - 12:00** Selected from abstracts (31): ResOmique: one network to connect them all
Stéphane Le Crom, *Sorbonne Université, FR*
- 12:00 - 12:15** Selected from abstracts (37): Training in a core the Aquiles heel or is strength
Lola Martinez, *Spanish National Cancer Research Centre CNIO, ES*
- 12:15 - 12:50** Core facilities enable cutting-edge life science research
Jo Bury, *Managing Director VIB, BE*

- 12:50 - 13:00** Wrap up and farewell
Chris Guérin and **Patrick England**

Satellite session 3

Hall: Refter

STRATOCORE PPMS USER GROUP MEETING

Chair: Spencer Shorte

- 14:00 - 17:00** Stratocore at The Francis Crick Institute
Derek Davies, *The Francis Crick Institute, UK*
- Stratocore at Dublin City University
Robbie Sinnott, *Dublin City University, IE*
- Stratocore at EMBL
Malte Paulsen, *European Molecular Biology Laboratory, DE*
- Stratocore at A*STAR
Graham Wright, *Agency for Science, Technology and Research, SG*
- Stratocore PPMS Showcase Presentation
- Participant Roundtable Discussion

Satellite session 4

FSVM building

- 13:30 - 17:20** First part of this session takes place at UGent FSVM building: Technologiepark 927 B-9052 Ghent (Zwijnaarde), Belgium

P4EU SEMINAR

Chair: Jurgen Hastraete

- 08:45 - 09:15** Gathering and coffee
- 09:45 - 10:15** From recombinant academic research tool to GMP derived biological, possible pitfalls
Annie Van Broekhoven, *AmatsiQBiologics (a spin-off of VIB), BE*
- 09:45-10:15** Nanobodies as research tool, diagnostics and therapeutics
Gholamreza Hassanzadeh Ghassabeh, *VIB Nanobody Core, VUB, BE*
- 10:15-10:45** Antibody-based biologicals to fight infectious diseases
Bert Schepens, *VIB-UGent Center for Medical Biotechnology, BE*
- 10:45-11:00** Coffee break
- 11:00-11:30** Affitins
Frédéric Pecorari, *Centre de Recherche en Cancérologie et Immunologie Nantes - Angers - Inserm, FR*
- 11:30-12:00** Characterization of Protein-Protein Interactions by Isothermal Titration Calorimetry
Sammy Detry (PhD student), *VIB-UGent Center for Inflammation ResearchCancérologie et Immunologie, BE*
- 12:00 - 12:30** Title tba
Roslyn Bill, *School of Aston University, UK*
- 12:30 - 13:30** Lunch
- 13:30 - 14:00** GlycoDelete engineering: towards an eukaryotic E. coli
Wander Van Breedam, *VIB-UGent Center for Medical Biotechnology, BE*
- 14:00 - 14:30** Rational design of CHO cell lines
Stefan Kol, *NNF Center for Biosustainability, DK*
- 14:30 - 15:00** Rational design of CHO cell lines
David Hacker, *Protein Production and Structure Core Facility of EPFL, CH*
- 15:00 - 15:30** Coffee Break
- 15:30 - 16:00** A new application of multi angle light scattering coupled to ion-exchange chromatography (IEXMALS) for protein characterization
Mario Lebendiker, *Hebrew University of Jerusalem, IL*
- 16:00 - 16:30** Harnessing the Profinity eXact™ System for Expression and Purification of Heterologous Proteins in E. coli
Yoav Peleg, *Weizmann Institute of Science, IL*
- 16:30 - 17:00** Development of a robust Tn5 expression and purification protocol for large-scale low-cost NGS library preparation
Kim Remans, *Protein Expression and Purification Core Facility of EMBL, DE*
- 17:00 - 17:15** P4EU general discussion and closing
- 17:15 - 18:00** Closing toast