Scientific Program

Thursday, 3 Oct.

8:30  On-site registration opens  Lavoisier A room

9:00  OPENING REMARKS  Claude Bernard lecture hall
      Martin Oheim/Sophie Bernard/Olivier Biondi (Paris)

9:15  KEYNOTE LECTURE  Claude Bernard sponsored by C’nano Ile-de-France
      Daniel Axelrod (Ann Arbor)
      Evanescent in fluorescence excitation and emission

10:30  Coffee break, exhibition & poster display  Lavoisier A, B & C

Session 1  EVANESCENCE IN EXCITATION: GEOMETRIES, VARIANTS, AND INSTRUMENTATION.
Chair: Martin Oheim

11:00  Marcel van ’t Hoff (Florence)
        Screening by imaging: scaling up single-DNA-molecule
        analysis with a novel parabolic VA-TIRF reflector and
        noise-reduction techniques

11:30  Herbert Schneckenburger (Aalen)
        A prism-TIRF setup for variable-angle TIRFM

12:00  Alex Asanov (Cary)
        TIRF geometries for microscopy and spectroscopy, cell
        biology, molecular diagnostics, real-time microarrays,
        and nanoengineering

12:30  Steven Magennis (Manchester)
        Pulse-shaped two-photon TIRF

13:00  LUNCH  Lavoisier

14:00  DEMONSTRATION 1: Olympus, TIRF-labs, Zeiss  Lavoisier B & C

        in parallel: poster session, exhibition  Lavoisier A & hallways
**Session 2:** EVANESCENCE IN EMISSION: SUPERCritical ANGLE FLUORESCENCE. 
Chair: Daniel Axelrod

16:00 Christian Seebacher (Munich)  
**Simulation of TIRF objective designs**

16:30 Jörg Enderlein (Göttingen)  
**Metal-induced energy transfer: measuring quantum yields and molecular distances**

17:00 Martin Oheim, Maxime Teremetz, Christophe Tourain, and Maia Brunstein (Paris)  
**Combined evanescent-wave excitation and supercritical-angle fluorescence detection improves optical sectioning**

17:30 *Coffee break, exhibition & poster display* Lavoisier A, B & C

18:00 Stefan Seeger (Zurich)  
**Supercritical Angle Fluorescence Technology: A High Resolution Tool to Detect Affinity Binding, Adsorption and Aggregation at Artificial and Cellular Surfaces**

18:30 Emmanuel Fort (Paris)  
**Full-field evanescent emission microscopies**

19:15 *Cocktail-Apéro* terrasse of the European Surgery School (by invitation)

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**Friday, 4 Oct.**

**Session 3:** TIRF SUPERRESOLUTION  
Chair: Emmanuel Fort

9:00 Marcel Leutenegger (Lausanne)  
**Super-resolved fluorescence imaging and spectroscopy in the evanescent field**

9:30 Sandrine Lévêque-Fort (Orsay)  
**Fluorescence lifetime imaging with evanescent waves**

10:00 Maia Brunstein, Kai Wicker, Rainer Heintzmann and Martin Oheim (Paris)  
**Fast, full-field dual-colour super-resolution imaging**
10:30  Coffee break, exhibition & poster display  Lavoisier A, B & C

11:00  Peter Saggau (Houston/Genova)  
       **High-speed standing wave microscopy**

11:30  Anne Sentenac (Marseille)  
       **Resolution beyond the diffraction limit using grating-assisted microscopy**

12:00  LUNCH  Lavoisier

12:30  DEMONSTRATION 2 : Olympus, TIRF-labs, Zeiss  Lavoisier B & C  
       *in parallel: poster session, exhibition*  Lavoisier A & hallways

**Session 4:**  APPLICATIONS

14:30  Christien Merrifield (Gif-sur-Yvette)  
       **The molecular dynamics of clathrin mediated endocytosis.**

15:00  Stefan Diez (Dresden)  
       **Mapping optical near fields by fluorescent microtubules**

15:30  Coffee break, exhibition & poster display  Lavoisier A, B & C

16:00  Claire Desnos (Paris)  
       **Traffic and exocytosis of secretory vesicles in polarized cells**

16:30  Dongdong Li (Paris)  
       **All-optical probing of astrocyte gliotransmitter release using optogenetic tools and evanescent-filed Ca\(^{2+}\) imaging**

17:00  ROUND TABLE  Lavoisier C room, sponsored by Carl Zeiss  
       - Making choices: build-your own vs. commercial set-up ?  
       - From the lab: how to measure evanescent-wave calibration depths  
       - But what does it all mean? Quantifying TIRF images.  
       - Making most of the photon budget: trading spatial and temporal and spectral resolution in live-cell microscopy

19:00  Farewell

20:00  Speakers’ diner  Bd St Germain