

Conference on Frontiers in Olfaction



24 - 28 July 2017
Trieste, Italy

Further information:

Activity URL: <http://indico.ictp.it/event/7979/>

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Olfaction is the final frontier of our senses — the one that is still almost completely mysterious to us. Despite extensive genetic and perceptual data, and a strong push to solve the neural coding problem, fundamental questions about the sense of smell remain unresolved

Description:

The task of olfaction is challenging; it depends critically on the ability to rapidly detect, identify, categorize, and prepare for memory storage myriad odorants that vary in molecular structure and concentration. Yet, olfactory processing is achieved by relatively few layers of neurons, with anatomical structures and physiological mechanisms that appear repeatedly in widely divergent species. Thus, a study of olfaction offers the promise of insight into a successful and perhaps optimal biological algorithm for processing complex information. Driven by novel experimental techniques, including next-generation sequencing, optogenetics, and imaging/recordings in awake behaving animals, the experimental data is undergoing an explosive growth. At the same time, a variety of computational and theoretical models ranging from labelled-line to spike coding have been proposed to explain the data. This workshop will bring together researchers in physics, chemistry, biochemistry, computer science, behavioural sciences, neurophysiology, basic biology, and genomics in an attempt to evaluate the current state of the field.

Topics:

- Olfactory coding and perception
- Olfactory search and algorithms
- Experimental and theoretical neuroscience of olfaction

How to apply:

Online application:
<http://indico.ictp.it/event/7979/>

Female scientists are encouraged to apply.

Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

To facilitate participation of younger scientists to the conference ECRO will support 2 travel grants for students not supported by ICTP.

Details for application documents and submission can be found here: http://www.ecro-online.com/108/GRANTS/ecro-european_chemoreception_research_organisation-ecro-online/general_rules/.

Directors:

A. CELANI, ICTP

A. MENINI, SISSA

V. MURTHY, HARVARD UNIVERSITY

M. VERGASSOLA, UNIVERSITY OF CALIFORNIA, SAN DIEGO

Local Organizer:

A. CELANI, ICTP

Speakers:

F. Albeanu, CSHL

L. Buck, Fred Hutchinson Cancer Research Center

A. Carleton, Geneva U.

M. Dickinson, CALTECH

S. Firestein, Columbia U.

A. Fleischmann, College de France, Paris

B. Hansson, MPI Jena

C. A. Greer, Yale

T. Holy, Washington U. in St. Louis

A. Koulakov, CSHL

P.M. Lledo, Institut Pasteur, Paris

P. Mombaerts, MPI Frankfurt

D. Rinberg, NYU

D. Rokni, The Hebrew U.

A. Schaefer, The Francis Crick Institute

A. Seminara, U. Nice Sophia Antipolis

N. Sobel, Weizmann Institute of Science

P. Szyszka, Konstanz U.

L. Vosshall, The Rockefeller U.

T. Wyatt, U. of Oxford

Deadlines:

For applicants requesting financial support:

7 May 2017

For applicants NOT requesting financial support:

1 June 2017



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