

19th International Conference on Systems Biology
October 28 - November 1, 2018
Lyon, France

Instructions – Call for abstracts

19th International Conference on Systems Biology (ICSB) 2018

We are pleased to invite you to submit your abstract to the 19th International Conference on Systems Biology (ICSB2018).

Abstracts must be submitted exclusively via the online platform available from <http://www.icsb2018-france.com/call-for-abstracts> after reading the instructions below.

Important Dates

Late-breaking poster submissions deadline	October 7, 2018
Notification of acceptance to authors (Late-breaking submissions)	October 12, 2018
Conference Dates	October 28 - November 1, 2018

Conference Themes

Methodological developments for Systems Biology / Education for Systems Biologists / Modelling Networks and Circuits / Multi-omics / Single-cell Systems Biology / Quantitative Systems Physiology / Humanities and Social Sciences for Systems Biology: epistemological, social and ethical dimensions / Developmental Systems Biology / Systems Neurosciences / Systems Medicine / Systems Biology for Synthetic Biology / Multiscale Systems Biology / Evolutionary and Ecological Systems Biology / Systems Biomechanics

Abstract Themes

Methodological developments for Systems Biology:

- Parameters estimation
- Statistical tools for Systems Biology
- Mixed-effect models
- Identifiability
- Multiscale methodological issues
- Information theory *and more*.

Education for Systems Biologists:

- Inter- or trans-disciplinary training
- Novel methods and tools
- Students' mobility
- Role of infrastructures and research centers in systems biology education
- Career paths
- Mathematical and computational training for systems biologists
- Training of professional biologists - Interdisciplinary collaborations *and more*.

Modelling Networks and Circuits:

- Deterministic dynamical models (ODEs and PDEs)
- Stochastic models
- Graphical models
- Boolean models
- Network and statistical modelling *and more*.

Multi-omics:

- Integration of different -omics data (e.g. transcriptome, metabolome, methylome, ChIP-seq)
- Genome-wide models (e.g. stochastic models based on scRNA-seq)
- Role of genetic variation on systems biology models (of gene regulation, metabolism, development, etc.) *and more*.

Single-cell Systems Biology:

- Methodological aspects for single-cell molecular interrogation
- Dedicated statistical tools
- From single cells to tissues, and back
- Single-cell multi-omics *and more*.

Quantitative Systems Physiology:

- Quantitative approaches to microbial physiology
- Phenomenological framework of cellular reproduction
- Growth and the cell cycle
- Coordination of biosynthesis
- Quantitative predictive power of single-cell physiology *and more*.

Humanities and Social Sciences for Systems Biology: epistemological, social and ethical dimensions:

- Epistemology of systems biology
- Epistemology of modelling
- Epistemology of interdisciplinarity
- Ethical questions raised by systems biology and systems medicine *and more*.

Developmental Systems Biology:

- Plant and animal cellular and tissue-level development and differentiation
- Morphogenesis
- Patterning and growth in the developing embryo
- Tissue and organ development *and more*.

Systems Neurosciences:

- Network-based approaches to brain function
- Neural networks
- Molecular and cellular approaches for modelling brain structure and functions
- Electrophysiology, *in vivo* imaging *and more*.

Systems Medicine:

- Systems approaches to healthcare and drug discovery
- Systems and personalised medicine
- Big data for systems medicine
- Systems biology for cancer, immunology, stem cells, aging *and more*.

Systems Biology for Synthetic Biology:

- Biotechnology and new energy
- Artificial cells, tissues and organoids
- Cell optimisation *and more*.

Multiscale Systems Biology:

- Coupling large-scale networks (regulatory, metabolic and signalling networks)
- Cellular populations to ecological interactions
- From microbiome to host physiology
- Systems analysis for environment management *and more*.

Evolutionary and Ecological Systems Biology:

- Systems approach to evolution and evolution of systems
- Networks evolution
- Study of ecosystems
- Interactions within and between biological and ecological systems
- Comparative genomics
- Microbiomes, microbial communities *and more*.

Systems Biomechanics:

- Biofluid mechanics
- Dynamical biophysics
- Biotribology
- Comparative biomechanics *and more*.

Presenting Author's Responsibilities

The person submitting the abstract needs first to identify the presenting author who has to be registered to the congress in order to present his/her abstract.

As the primary contact for the abstract, the presenting author will be responsible for:

- communicating to all co-authors regarding the acceptance of the abstract
- obtaining conflict of interest disclosures from them.

Abstract Format and Submission

In order to submit your abstract, please use the platform accessible from the website <http://www.icsb2018-france.com/call-for-abstracts> and follow the steps.

- Following items are required:
 - Authors' Information
 - Preferred Abstract Presentation Format (oral, poster) - Final decision will be made by the Scientific Program Committee
 - Abstract Title in uppercase. The title should not exceed 150 characters
 - Abstract Topic. Please select the theme that best describes your abstract. You can also select a secondary topic

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- Abstract should not exceed 2,500 characters including spaces (320 to 430 words) and should not include images or tables
- The official language of ICSB2018 is English and there will be no translation services provided during the conference
- Abbreviations should be introduced before use. For example, "hepatitis C virus (HCV)."

Abstract Review and Acceptance

All presentations will be accepted based on quality, relevance and space availability after review by the Scientific Program Committee.