# Bologna (Italy), 19<sup>™</sup> and 20<sup>™</sup> November, 2015



ALMA MATER STUDIORUM Università di Bologna



# International symposium on:

THE IMPACT OF GENOMIC DEEP SEQUENCING ON PAEDIATRIC RESEARCH AND CLINICAL PRACTICE

*Organized by* Paediatrics Unit Sant'Orsola Academic Hospital Alma Mater Studiorum University of Bologna

### **Promoted by**



FONDAZIONE INTERNAZIONALE MENARINI

Stabat Mater Hall Bologna, Italy



As many fields of medicine, paediatric research and clinical practice have greatly benefited, over this last decade, of the innovative discoveries derived by a deep approach to the genome.

We have selected, as icon for this symposium, the Angel holding a candlestick carved by a young Michelangelo for the shrine of San Domenico in Bologna, because the flame of genomic knowledge is like the candlestick lightening the dark scenario of our translational clinical practice.

The integration of the discoveries derived from deep genome sequencing has particular value for researchers who wish to address understudied issues in many different childhood diseases and clinical conditions.

The ultimate aim of this symposium is to promote a constructive dialogue between physicians and researches as to integrate distinctive knowledge in different fields towards a translational and personalized approach to paediatrics.

> Andrea Pession President of the symposium

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### Under the auspices of

Dipartimento Scienze Mediche e Chirurgiche Alma Mater Studiorum Università di Bologna

> *SIP* Società Italiana di Pediatria

*CIRC* Centro Interdipartimentale di ricerche sul cancro "Giorgio Prodi" Alma Mater Studiorum Università di Bologna

#### President of the symposium

Andrea Pession Paediatrics Unit Sant'Orsola Academic Hospital Alma Mater Studiorum Università di Bologna

### Scientific secretariat

Annalisa Astolfi Riccardo Masetti

#### Promoted by

#### Fondazione Internazionale Menarini

Edificio L - Strada 6 Centro Direzionale Milanofiori 20089 Rozzano (Milan, Italy) Phone: +39 02 55308110 Fax: +39 02 55305739 E-mail: milan@fondazione-menarini.it www.fondazione-menarini.it

### Organizing secretariat and CME provider

#### DueCi Promotion srl

Via C. Farini, 28 40124 Bologna (Italy) Phone: +39 051 4841310 Fax : +39 051 247165 E-mail: ggrillenzoni@duecipromotion.com www.duecipromotion.com

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| 03:00 p.m. | Attendees | registration |
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# Welcome ceremony

03:30 p.m. Welcome addresses F. Ubertini, Rector, University of Bologna G. Corsello, President SIP- Società Italiana di Pediatria A. Pession, President of the meeting

# **Opening lectures**

Chairmen: G. Basso, A. Villani

**04:00 p.m. H. Hakonarson** The future of precision medicine approaches in patient care

05:00 p.m. S. Semplici Ethical issues

06:00 p.m. Welcome cocktail

# Session I: Paediatric Immunology

| Chairmen:                | G. Cocchi, C. Pignata  |
|--------------------------|--|
| 09:00 a.m.               | <b>S.F. Kingsmore</b><br>Rapid whole-genome sequencing for genetic disease<br>diagnosis in neonatal intensive care units   |
| 09:30 a.m.               | <b>A. Aiuti</b><br>Novel approaches to screening and diagnosis<br>of primary immunodeficiencies  |
|                          | Session II: Paediatric Rare Disease  |
| Chairmen:                | L. Mazzanti, M. Seri   |
| 10:00 a.m.               | <b>S. Calvo</b><br>Molecular diagnosis of infantile mitochondrial disease<br>with targeted next-generation sequencing  |
| 10:30 a.m.               | <b>S. Vilarinho</b><br>Individual exome analysis in diagnosis and management<br>of paediatric liver diseases of indeterminate etiology   |
| 11:00 a.m.               | Coffee break   |
|                          |  |
|                          | Session III: Paediatric Pneumology   |
| Chairmen:                | <b>Session III: Paediatric Pneumology</b><br>F. Bernardi, S. Nava  |
| Chairmen:<br>11:30 a.m.  |  |
|                          | <b>F. Bernardi, S. Nava</b><br><b>W.O. Cookson</b><br>The GABRIEL experience and beyond: making  |
| 11:30 a.m.               | <ul> <li>F. Bernardi, S. Nava</li> <li>W.O. Cookson</li> <li>The GABRIEL experience and beyond: making sense of asthma with genes</li> <li>R.B. Parad</li> <li>Next generation sequencing of CFTR:</li> </ul>  |
| 11:30 a.m.               | <ul> <li>F. Bernardi, S. Nava</li> <li>W.O. Cookson</li> <li>The GABRIEL experience and beyond: making sense of asthma with genes</li> <li>R.B. Parad</li> <li>Next generation sequencing of CFTR: utility in CF newborn screening</li> </ul>                  |
| 11:30 a.m.<br>12:00 a.m. | <ul> <li>F. Bernardi, S. Nava</li> <li>W.O. Cookson The GABRIEL experience and beyond: making sense of asthma with genes <b>R.B. Parad</b>  Next generation sequencing of CFTR: utility in CF newborn screening Session IV: Paediatric Endocrinology</li></ul> |

|            | Session V: Paediatric Reumathology  |
|------------|---|
| Chairmen:  | R. Meliconi, G. Ricci   |
| 03:00 p.m. | <b>A. Martini</b><br>Genetics of auto-inflammatory disorders in childhood   |
| 03:30 p.m. | <b>G. Schulert</b><br>Sequence data analysis with trios in rheumatic<br>and other diseases                                    |
|            | Session VI: Paediatric Gastroenterology   |
| Chairmen:  | G. Di Nardo, V. Stanghellini  |
| 04:00 p.m. | <b>S. Ennis</b><br>Deep exome sequencing of paediatric autoimmune<br>disease patients   |
| 04:30 p.m. | <b>P. Brigidi</b><br>Functional and phylogenetic characterization<br>of gut microbiome by deep sequencing                     |
|            | Session VII: Paediatric Oncology and Hematology   |
| Chairmen:  | F. Locatelli, G. Martinelli   |
| 05:00 p.m. | <b>C. Mullighan</b><br>Genomic characterization of childhood<br>acute lymphoblastic leukemia                                  |
| 05:30 p.m. | <b>R. Huether</b><br>The landscape of somatic mutations<br>in epigenetic regulators across<br>1,000 paediatric cancer genomes |
| 06:00 p.m. | CME questionnarie   |
| 06:20 p.m. | Closing remarks   |

| A. Aiuti        | Milan, Italy      |
|-----------------|-------------------|
| G. Basso        | Padova, Italy     |
| F. Bernardi     | Bologna, Italy    |
| P. Brigidi      | Bologna, Italy    |
| S. Calvo        | Cambridge, USA    |
| A. Cassio       | Bologna, Italy    |
| G. Cocchi       | Bologna, Italy    |
| W.O. Cookson    | London, UK        |
| G. Corsello     | Palermo, Italy    |
| G. Di Nardo     | Rome, Italy       |
| C. Dionisi Vici | Rome, Italy       |
| S. Ennis        | Southampton, UK   |
| P. Froguel      | London, UK        |
| H. Hakonarson   | Philadelphia, USA |
| R. Huether      | Aliso Viejo, USA  |
| F. Locatelli    | Rome, Italy       |
| G. Martinelli   | Bologna, Italy    |
| A. Martini      | Genova, Italy     |
| L. Mazzanti     | Bologna, Italy    |
| R. Meliconi     | Bologna, Italy    |
| C.G. Mullighan  | Memphis, USA      |
| S. Nava         | Bologna, Italy    |
| R.B. Parad      | Boston, USA       |
| R. Pasquali     | Bologna, Italy    |
| A. Pession      | Bologna, Italy    |
| C. Pignata      | Naples, Italy     |
| G. Ricci        | Bologna, Italy    |
| G. Schulert     | Cincinnati, USA   |
| S. Semplici     | Rome, Italy       |
| M. Seri         | Bologna, Italy    |
| V. Stanghellini | Bologna, Italy    |
| S. Vilarinho    | New Haven, USA    |
| A. Villani      | Rome, Italy       |
|                 |                   |

FRIDAY, 20<sup>TH</sup> NOVEMBER - AFTERNOON PROGRAM

# **GENERAL INFORMATION**

### Meeting venue

The venue for the symposium is Stabat Mater Hall Archiginnasio Public Library Piazza Galvani 1, Bologna (Italy)

### Secretariat during the meeting

The Secretariat will be open at the following times: Thursday 19<sup>th</sup> November from 03:00 p.m. to 06:00 p.m. Friday 20<sup>th</sup> November from 09:00 a.m. to 06:30 p.m.

## **Official language**

The official language of the meeting will be English. Simultaneous translation will not be provided.

# **CME: Continuing Medical Education**

**DueCi Promotion srl**, CME Provider of the symposium, will assign CME credits to the following profiles:

- **Physicians** specialized in:
  - Paediatrics
  - Hematology
  - $\cdot$  Endocrinology
  - $\cdot$  Oncology
  - Gastroenterology
  - Medical genetics
  - · Metabolic disease and diabetology
  - $\cdot$  Internal medicine
  - · Rheumatology
- Biologists

### Attendees' registration

The symposium is free to attend, but on line registration is required.

Please link to the organizing secretariat website: www.duecipromotion.com > Congressi Medici > Calendario Congressi > Registrazione on line

On line registrations will be accepted on a first-come, first-served basis and may be closed in advance whenever the maximum number of participants allowed in the venue will be reached.

### **Registration includes:**

access to scientific sessions, welcome cocktail, coffee breaks, lunch, program book, certificate of attendance.



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