



**International Course**  
**Training on strategies to foster**  
**solutions of undiagnosed rare**  
**disease cases**

**3-5 April 2023**  
**Istituto Superiore di Sanità, Rome, Italy**

**Endorsed by**



This Training has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No 825575 - European Joint Programme on Rare Diseases

## GENERAL INFORMATION INTRODUCTION AND OBJECTIVES

The International Course **Training on strategies to foster solutions of undiagnosed rare disease cases** is part of a series of training activities proposed by the European Joint Programme on Rare Diseases (EJP RD). EJP RD is a European Commission funded project (grant agreement No 825575, 2019 – 2023) with the goal “to create a comprehensive, sustainable ecosystem allowing a virtuous circle between research, care and medical innovation”. For more information about the EJP RD, see <https://www.ejprarediseases.org/>

This International course is part of WP14 of the EJP RD, “Training on Data Management & Quality”; Task 14.3 “Training on strategies to foster solutions of undiagnosed rare disease cases”. WP and Task Leader: Dr. Claudio Carta, ISS.

Course Director: Dr. Claudio Carta, ISS.

The Course is made up of 3 days of residential training organized by ISS in close collaboration with EJP RD Task Partners [EKUT, LBG (LBI-RUD), ACU/ACURARE, ISCIII, INSERM (AMU), FTELE, UMCG, IMAGINE, CNAG-CRG, IPCZD (CMHI)].

The course is endorsed by the International Collaboration on Rare Diseases and Orphan Drugs, [ICORD] and Undiagnosed Diseases Network International [UDNI].

Several initiatives have been undertaken at national and international level for undiagnosed rare diseases aimed at identifying clinical pathways and innovative methods to reach diagnosis. This course will illustrate methodologies and tools already used internationally and will provide participants with useful examples for the resolution of undiagnosed cases.

The course will provide participants, through the presentation of sample use cases that have long eluded diagnosis, with useful tools, instruments and knowledge on novel strategies to foster solutions of undiagnosed RD cases. Moreover, the course will facilitate networking among professionals involved in undiagnosed rare conditions.

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**ACU/ACURARE** Acibadem Universitesi, Istanbul, Turkey

**CNAG-CRG** Fundacio Centre de Regulacio Genomica, Barcelona, Spain

**EKUT** Eberhard Karls Universität Tübingen, Tübingen, Germany

**FTELE** Fondazione Telethon, Milan, Italy

**ICORD** International Collaboration on Rare Diseases and Orphan Drugs

**IMAGINE** Imagine Institut des Maladies Genetiques Necker Enfants Malades, Fondation, Paris, France

**INSERM (AMU)** Institut National de la Santé et de la Recherche Medicale, Marseilles, France

**IPCZD (CMHI)** Instytut Pomnik Centrum Zdrowia Dziecka, Warsaw Poland

**ISCIII** Instituto de Salud Carlos III, Madrid, Spain

**ISS** Istituto Superiore di Sanità, Rome, Italy

**LBG (LBI-RUD)** Ludwig Boltzmann Gesellschaft GMBH, Vienna, Austria

**UMCG** Academisch Ziekenhuis Groningen, Netherlands



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## LEARNING METHOD

The in-person course is composed of presentations held by the experts and interactive question & answer sessions between speakers and participants.

Tool demonstrations and hands-on exercises will be part of the training course as well.

## PARTICIPANTS AND REGISTRATION

The training course will take place in-person at Istituto Superiore di Sanità (ISS, viale Regina Elena 299). The training is open to the international research community, to clinicians and to medical specialists who have experience and concrete interest in the diagnosis and research of rare diseases.

To ensure active participation and exchange with teaching staff and participants a maximum of 30 participants will be admitted to the training course.

A selection process will be applied based on the participants' background in: genotypic and/or phenotypical identification of rare disorders; deep phenotyping; inferring variants; digital technologies in rare diseases. Priority will be given to participants involved in the European Reference Networks (ERNs) and in national and international Rare Disease Programs and Projects: Undiagnosed Diseases Network International (UDNI), Solving the Unsolved Rare Diseases (Solve-RD).

This course foresees: four fellowships for participants living in an EU-13 Country and Turkey. For more information about eligibility and criteria for selection, contact Claudio Carta at: [claudio.cart@iss.it](mailto:claudio.cart@iss.it) (in Cc [laura.cellai@iss.it](mailto:laura.cellai@iss.it))

For each fellowship a maximum of 420 euros for round travel and 150 euros/night for hotel accommodation for a maximum of 3 nights are available.

Please note: inside ISS the wearing of FFP2 masks is mandatory. Social distancing will be required during the training course.

Participants are asked to bring their laptop for the hand-on sessions.



**REGISTRATION FORM** For important updates, deadlines and for the online registration please visit the website at the following [ONLINE REGISTRATION](#)

**Deadline for registration: 15 February 2023.**

**Registration will remain open for the reserve list only until 2 March 2023.**

**An e-mail will be sent by 3 March 2023 to the participants selected to attend the course with and without travel and accommodation fellowship.**

### **FEES AND COSTS**

The course and registration are free of charge.  
The course organizers will not cover expenses incurred by the participants in any case.

### **LEARNING ASSESSMENT**

At the end of the course participants will be asked to submit an online multiple-choice learning assessment questionnaire and a satisfaction survey.

### **ATTENDANCE CERTIFICATES**

At the end of the course a certificate of attendance will be forwarded to the participants who attended the entire course programme. No credits for Continuing Education in Medicine will be issued.

### **OFFICIAL LANGUAGE**

English

### **VENUE**

Aula Bovet, Istituto Superiore di Sanità, Viale Regina Elena, 299- Rome, Italy

**For important dates, deadlines, registration form, and further information, please visit the website at the following [LINK](#)**

### **CONTACT**

If you have questions, please write to the course organizer Claudio Carta:  
[claudio.carta@iss.it](mailto:claudio.carta@iss.it) (in Cc [laura.cellai@iss.it](mailto:laura.cellai@iss.it))



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# Programme of the Course

**DAY 1 (CEST TIME)**

**April 3, 2023**

09:30 Registration of the Participants

10:00 Welcome address & Faculty & Presentation of the course

**Director National Centre for Rare Diseases**

10:15 Overview of the European Joint Programme on Rare Diseases

**Claudio Carta**

10:30 Undiagnosed diseases: the family perspective

**Helene Cederroth (online)**

11:00 Break

11:20 Overview of the Undiagnosed Diseases Network International

**Domenica Taruscio**

11:40 Overview of the Undiagnosed Diseases Network Italy

**Marco Salvatore**

12:00 Social and family impact of diagnostic delay of rare diseases: the Spain experience

**Juan Benito Lozano**

12:30 Questions & Answers

12:45 *Lunch*

14:00 Solve-RD, Solving the unsolved Rare Diseases & Use Cases

**Katja Lohmann (online)**

14:45 Solving RDs with the RD-Connect Genome-Phenome Analysis Platform

**Leslie Matalonga, Sergi Beltran**

15:20 *Break*

15:30 Hands-on exercise

**Leslie Matalonga, Sergi Beltran**

16:30 *End of the day 1*

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## DAY 2 (CEST TIME)

April 4, 2023

09:45 **Welcome to participants**

10:00 Use Case from Telethon/TIGEM

**Vincenzo Nigro**

10:45 Use Case from University of Tor Vergata

**Giuseppe Novelli**

11:30 *Break*

11:50 Use Cases from Instytut Pomnik-Centrum Zdrowia Dziecka

**Krystyna Chrzanowska**

12:30 Questions & Answers

12:45 *Lunch*

14:00 Use Cases from Université Aix Marseille

**Christophe Bérout**

14:30 Hands-on exercise

**Christophe Bérout**

16:00 *End of the day 2*

## DAY 3 (CEST TIME)

April 5, 2023

10:00 Use Cases from Hospital S. Camillo-Forlanini

**Francesca Clementina Radio**

10:45 Use Cases from Hôpital Necker Enfants Malades, Institut IMAGINE

**Rima Nabout (online)**

11:30 *Break*

11:50 Use Cases from University of L'Aquila

**Chiara De Luca**

12:30 Questions and Answers

12:45 *Lunch*

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14:00 Closing remarks

**Director of the National Centre for Rare Diseases, Domenica Taruscio,  
Claudio Carta**

14:20 Learning assessment questionnaire & Satisfaction survey

15:00 Free Networking Attendees/Speakers

16:30 End of the Course

## SPEAKERS

**Sergi Beltran**, Centre Nacional d'Anàlisi Genòmica, Barcelona, Spain

**Juan Benito Lozano**, Instituto de Investigación de Enfermedades Raras, ISCIII - Instituto de Salud Carlos III, Madrid, Spain

**Christophe Béroud**, Human Genetics of Aix-Marseille University, AMU, Marseille, France

**Claudio Carta**, National Centre for Rare Diseases, Istituto Superiore di Sanità, Rome, Italy

**Helene Cederroth**, Wilhelm Foundation, Stockholm, Sweden

**Krystyna Chrzanowska**, Department of Medical Genetics, The Children's Memorial Health Institute, Warsaw, Poland

**Chiara De Luca**, University of L'Aquila, L'Aquila, Italy

**Katja Lohmann**, Institute of Neurogenetics, University of Lübeck, Lübeck, Germany

**Leslie Matalonga**, Centre Nacional d'Anàlisi Genòmica, Barcelona, Spain

**Rima Nabout**, Hôpital Necker Enfants malades, Université Paris Descartes, Institut Imagine, Paris, France

**Vincenzo Nigro**, Tigem and University of Napoli, Naples, Italy

**Giuseppe Novelli**, University of Tor Vergata, Rome, Italy



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**Francesca Clementina Radio**, Sapienza University, San Camillo-Forlanini Hospital, Rome, Italy

**Marco Salvatore**, National Centre for Rare Diseases, Istituto Superiore di Sanità, Rome, Italy

**Domenica Taruscio**, Istituto Superiore di Sanità, Rome, Italy

### **COURSE DIRECTOR**

Claudio Carta, National Centre for Rare Diseases, ISS, Rome, Italy

### **SCIENTIFIC SECRETARIAT**

Federica Censi, Marco Salvatore, Domenica Taruscio, Fabrizio Tosto  
National Centre for Rare Diseases, ISS, Rome, Italy

### **ORGANIZING SECRETARIAT**

Linda Agresta, Laura Lee Cellai, Patrizia Crialesi, Stefano Diemoz, Sandro Ghirardi, National Centre for Rare Diseases, ISS, Rome, Italy



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