



REPORT

COST EuroCellNet WG4 meeting Bologna November 12-13 2018

“ Intranuclear Interactions of Lamins” and European Lamin Working Group A joint meeting with the Italian Network for Laminopathies Meeting

Organizer: Giovanna Lattanzi

Participants reimbursed by COST (EuroCellNet WG4):

Roland Foisner: roland.foisner@meduniwien.ac.at

Gisèle Bonne: g.bonne@institut-myologie.org

Pavel Hozak: hozak@img.cas.cz

Ohad Medalia: omedalia@bioc.uzh.ch

Claudia Cavadas: ccavadas@ci.uc.pt

Yannis Missirilis: yfmissirilis@gmail.com

Ryszard Rzepecki: rzepecki@ibmb.uni.wroc.pl

Luc Snyers: uc.snyers@meduniwien.ac.at

Giovanna Lattanzi: giovanna.lattanzi@cnr.it

Other speakers reimbursed by COST (COST Countries):

Eric Schirmer: E.Schirmer@ed.ac.uk

Anne Bertrand: a.bertrand@institut-myologie.org

Participants with own funding source: 50 members of the Italian Network for Laminopathies.

All the participants received the printed Program with COST EU and EuroCellNet logos.

The first part of the meeting was aimed at exploring the possibility to join our efforts as researchers involved in lamin and laminopathies studies in a European team for the study and treatment of laminopathies.

Gisèle Bonne as the coordinator of the French Network for Emery-Dreifuss muscular dystrophy and other nuclear envelope diseases and Giovanna Lattanzi as the coordinator of the Italian Network for Laminopathies drafted the agenda of the meeting and potential aims of the European Network for Laminopathies.

All participants agreed on the setting up of the European Network for Laminopathies with the following aims:

- To increase the knowledge on laminopathies, lamins, and the connection between nuclear structure and its functions
- To establish new collaborations between basic researchers and clinicians in order to implement translational research
- Organize workshop and symposia on topics that are relevant for laminopathies
- Organize patient-researcher exchange workshops
- To set up a website of the European Board for Laminopathies
- To set up a European Registry for Laminopathies ?
- To get visibility for lamins and laminopathies on major meetings
- To actively participate in the activities of the Intermediate Filaments Society

Representatives of the Italian Association for Progeria Sammy Basso (AIPROSAB), the Italian Association for Emery-Dreifuss Muscular Dystrophy (AIDMED) and the whole board of the Italian Network for Laminopathies attended the meeting and are supporting the new initiative.

The following people have been nominated as country representatives:

Austria Roland Foisner
Czech Republic Pavel Hozak
Finland John Eriksson
France Gisèle Bonne
Italy Giovanna Lattanzi
Norway Philippe Collas
Poland Ryszard Rzepecki, Agnieszka Madej-Pilarczyk
Portugal Claudia Cavadas
Spain David Araujo-Vilar
Switzerland Ohad Medalia
UK Eric Schirmer

Researchers and clinicians from other countries will be invited to join the Network. Many participants engaged to get in touch with potential country representatives.

This is the full list of countries so far involved:

Austria
Belgium
Czech Republic
Finland
France
Germany
Greece
Hungary
Israel
Italy
Norway
Poland
Portugal

Spain
Sweden
Switzerland
The Netherlands
UK

It was agreed to have a meeting of the European Network for Laminopathies every other year. The first one will take place in London on September 2-5 2019 at joint UK Nuclear Envelope Meeting and International Meeting on Laminopathies.

Eric Schirmer, Gisèle Bonne, Kathy Shanahan, Qiuping Zhang, Sue Shackleton and Giovanna Lattanzi are organizing this meeting.

It has been planned to start with some activities of the European Network for Laminopathies including the establishment of a Network website.

A Skype conference involving also people who could not attend the meeting in Bologna will be organized at the beginning of 2019.

The second session of November 12th meeting and the whole day of November 13th WG4 meeting were dedicated to scientific talks on “Intranuclear interactions of lamins”.

On November 12th the following scientific topics were discussed:

Phosphoinositides in Gene Expression (Pavel Hozak, CZ); Genome defects driving Emery-Dreifuss muscular dystrophy pathology (Eric Schirmer, UK),; The therapeutic efficacy of all-trans-retinoic acid and rapamycin in Hutchinson-Gilford progeria (Giovanna Lattanzi, Italy); The distinct mechanical properties of lamins and their role in transmitting forces (Yannis Missirlis, Greece).

On November 13th the following scientific topics were discussed:

Nonlinear mechanics of lamin filaments at the nuclear lamina (Ohad Medalia, Zurich, CH); New approaches to delay aging phenotype of progeria models based on neuroendocrine mechanisms (Claudia Cavadas, Portugal); Phenotypic differences in myoblast differentiation between EDMD and L-CMD (Anne Bertrand, France); Endothelial expression of progerin in mice and mechanosignaling of endothelial cells and pro-fibrotic cardiovascular HGPS pathologies (Roland Foisner, Austria); CRISPR/Cas9-mediated knock-out of nuclear lamina proteins to study their function in nuclear envelope formation (Luc Snyers, Austria); Emerin, EDMD1 and cellular models of the disease (Ryszard Rzepecki, Poland).

On November 13th, the Italian Network for Laminopathies meeting took place and five talks on lamins and laminopathies were presented by researchers and clinicians of the Italian Network for Laminopathies.

Moreover, representatives of laminopathic patient associations (AILIP, AIProSaB, AIDMED) gave their speech on association activities and patient need.

A report has been sent to participants to the WG4 meeting.

Bologna, November 16th 2018

Giovanna Lattanzi

CNR Institute of Molecular Genetics, Unit of Bologna, Italy

