

## **Translational research in the field of OFC: exploring grant funding opportunities**

11<sup>th</sup>- 13<sup>th</sup> September 2014 - Hotel San Girolamo dei Gesuati, Ferrara, Italy

### **PROGRAMME**

#### *Thursday, Sept. 11<sup>th</sup>*

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- Afternoon or early evening: arrival at Hotel San Girolamo dei Gesuati
- 19:30 Welcome wine and cheese reception at the “Hostaria Al Brindisi”, the most ancient tavern in the world, that is located aside the gothic Cathedral – it is 10 min walk from hotel: let’s meet at 19:15 at the lobby

#### *Friday, Sept. 12<sup>th</sup>*

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- 9:00 - 9.15 Welcome and Introduction (Francesco Bernardi, vice-dean of Univ. Ferrara; Michele Rubini)
- 9.15 - 9.30 Outline of the aims and objectives of this EUROcleftNet meeting (Peter A. Mossey)
- 9.30 - 10.00 Funding opportunities for European collaborative research: brief overview of next H2020 and MSCA calls (Silvia Raucci; Kelly Urhquart)
- 10:00-11:10 Translating Genetic Research in the field of OFC: Genetics session: new strategies for molecular diagnostics.
- 11:10-11:20 Tea/coffee break
- 11:20-12:40 Translating Genetic Research in the field of OFC: Phenomics session: 3D/4D phenotyping.
- 12:40-13:00 Translating Genetic Research in the field of OFC: Discussion (Peter Mossey)
- 13:00-14:00 Lunch
- 14:00-15:30 Parallel workshops: Molecular diagnostics (cleft-chip) and Phenotyping technologies (3D/4D imaging)
- 15:30-16:00 Workshop feedback & identification of best opportunities
- 16:00-17:00 Action points and conclusions
- 20:00 Dinner at the Hostaria Savonarola, aside the Este Duke Castle

*Saturday, Sept. 13<sup>th</sup>*

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- 9:00 – 11:30      EUROcleftNet group meeting
1. Strategic planning for the future (assuming we get an extension)
  2. Reports from new partners (Plovdiv and Ferrara)
  3. Mid Term Report and implications (circulate in advance)
  4. SVE programme for strategic support
  5. Reports from ECO (incl. Gateway) and overlap with COST
  6. Interaction with EUROCAT
  7. Trans - Atlantic links
  8. Future EUROcleftNet events
  9. Publicity / dissemination / website / Newsletter

*Participants*

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- Ales Maver (U Lubljana, Slovenia)
- Ashraf Ayoub (U Glasgow, Scotland)
- Borut Peterlin (U Lubljana, Slovenia)
- Carine Carels (U Radboud, Nijmegen, NL)
- Colin Urquhart (DI4D, Glasgow, UK)
- Elia Bonomo Roversi (U Ferrara, Italy)
- Elisa Calzolari (IMER, Italy)
- Elizabeth Mangold (U Bonn, Germany)
- Emil Simeonov (U Hosp Alexandrovska, Sofia, Bulgaria)
- Gareth Davis (E.C.O.)
- Joannis Pitas (U Thessaloniki, Greece)
- Kleoniki Lyroudia (U Thessaloniki, Greece)
- Maarten Koudstaal (Erasmus MC, Rotterdam, NL; Great Ormond Str. Hosp. London, England)
- Martin Persson (UWE Bristol, England)
- Michele Rubini (U Ferrara, Italy)
- Mike Dixon (U Manchester, England)
- Mohamed Daoudi (Lille, France)
- Olga Calabrese (AUSL Imola, Italy)
- Paola Franceschelli (U Ferrara, Italy)
- Peter Mossey (U Dundee, Scotland)
- Silvia Raucci (U Ferrara, Italy)
- William Davis (E.C.O.)
- William Shaw (U Manchester, England)
- Xiangyang Ju (U Glasgow, Scotland)
- Youri Anastassov (Med U Plovdiv, Bulgaria)

*More information:*

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How to reach Ferrara:

- Nearest Airports: Bologna (BLQ, <http://www.bologna-airport.it/uk/?LN=UK> ), 50 km; Venice (VCE, <http://www.veniceairport.it/en/> ), 100 km.
- From BLQ, catch the bus & fly that takes you straight to Ferrara city ([http://www.ferraraterraeacqua.it/en/ferraratransfer?set\\_language=en](http://www.ferraraterraeacqua.it/en/ferraratransfer?set_language=en) ): there are buses every 90 min. Otherwise, take a taxi or Aerobus (shuttle bus, <http://www.tper.it/content/linea-blq-aeroporto-stazione-centrale#airportENGstation> ) to train Central Station; then, take a train to Ferrara (<http://www.virail.it/treni-bologna-ferrara/2014-09-11> ).
- From VCE, take a taxi or ATVO FLY BUS ([http://www.atvo.it/allegati/aeroporti/linea\\_35\\_b\\_-\\_mestre\\_fs-m\\_polo\\_dal\\_16.6\\_al\\_31.8.14.pdf](http://www.atvo.it/allegati/aeroporti/linea_35_b_-_mestre_fs-m_polo_dal_16.6_al_31.8.14.pdf) ) or bus ACTV #15 to Venezia-Mestre train station. Then take a train to Ferrara (<http://www.virail.it/treni-venezia-ferrara/2014-09-11> ).

Meeting venue: Hotel *San Girolamo dei Gesuati*, a former medieval monastery ([http://www.sangirolamodeigesuati.com/index\\_eng.htm](http://www.sangirolamodeigesuati.com/index_eng.htm) ) located in center city ([http://www.sangirolamodeigesuati.com/Dove\\_siamo\\_eng.htm](http://www.sangirolamodeigesuati.com/Dove_siamo_eng.htm) ).

Free wifi is available to all participants.

Tavern/Restaurants:

Hostaria Al Brindisi: <http://www.albrindisi.net/>

Hostaria Savonarola: [http://www.tripadvisor.co.uk/Restaurant\\_Review-g194760-d1936375-Reviews-Hostaria\\_Savonarola-Ferrara\\_Province\\_of\\_Ferrara\\_Emilia\\_Romagna.html](http://www.tripadvisor.co.uk/Restaurant_Review-g194760-d1936375-Reviews-Hostaria_Savonarola-Ferrara_Province_of_Ferrara_Emilia_Romagna.html)

Events:

Ferrara Balloons Festival: <http://www.ferrarafestival.it/en>



## EUROcleftNet Ferrara Workshop reports

It was agreed in advance of the Ferrara meeting that the meeting would explore the possibilities for submission of one or more applications for grant funding either through the H2020 PHC avenue or a Marie Skłodowska Curie application or both. Two major themes were selected based on the expertise of EUROcleftNet personnel being cutting edge in Europe and globally (see below); and two major grant funding opportunities were also identified in Horizon 2020 PHC (Personalised Health Care) and Marie Skłodowska-Curie actions (H2020-PHC-2015 and H2020-MSCA-ITN-2015 respectively).

The morning session consisted of a series of short presentations by RNP members (see meeting agenda below), designed to inform the Workshop discussions for the two themes, which were then discussed in detail:

1. **Molecular diagnostics approach to risk assessment:** Using all the information at our disposal on the genetics / genomics of orofacial clefting to discuss the possibility of producing a gene-chip utilising the expertise from our existing EUROcleftNet groups particularly Bonn, Nijmegen, Manchester, combined with those who adopt a bioinformatics approach such as Ales Maver and Borut Peterlin, Lubljana, Slovenia.
2. **3D / 4D imaging in OFC diagnostics and outcomes:** The second theme of the conference relates to innovations in imaging for orofacial clefts (and beyond); and Ashraf Ayoub and Yang Ju from Glasgow agreed to lead on this theme, with invitations from a range of European collaborators in France, Italy, Greece and the Netherlands who are interested in making a contribution.

### *SESSION 1: Friday, Sept. 12<sup>th</sup> : Plenary programme*

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- 9:00 - 9.15 Welcome and Introduction (Francesco Bernardi, vice-dean of Univ. Ferrara; Michele Rubini)
- 9.15 - 9.30 Outline of the aims and objectives of this EUROcleftNet meeting (Peter A. Mossey)
- 9.30 - 10.00 Funding opportunities for European collaborative research: brief overview of next H2020 and MSCA calls (Silvia Raucci)
- 10:00-11:10 Translating Genetic Research in the field of OFC: Genetics session: new strategies for molecular diagnostics (5 x10 minute presentations). Chair Prof Michele Rubini
- 11:10-11:20 Tea/coffee break
- 11:20-12:40 Translating Genetic Research in the field of OFC: Phenomics session: 3D/4D phenotyping (6 x 10 minute presentations). Chair Prof Ashraf Ayoub
- 12:40-13:00 Translating Genetic Research in the field of OFC: Discussion (Peter Mossey)



*SESSION 2: Friday, Sept. 12<sup>th</sup> : Workshops 14.00 – 17.00*

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## **EUROcleftNet Workshop A report: Molecular diagnostics**

- **Ales Maver (U Lubljana, Slovenia)**
- **Borut Peterlin (U Lubljana, Slovenia)**
- **Carine Carels (U Radboud, Nijmegen, NL)**
- **Elia Bonomo Roversi (U Ferrara, Italy)**
- **Elizabeth Mangold (U Bonn, Germany)**
- **Emil Simeonov (U Hosp Alexandrovska, Sofia, Bulgaria)**
- **Kleoniki Lyroudia (U Thessaloniki, Greece)**
- **Michele Rubini (U Ferrara, Italy)**
- **Mike Dixon (U Manchester, England)**
- **Olga Calabrese (AUSL Imola, Italy)**
- **Paola Franceschelli (U Ferrara, Italy)**

**Research grant funding opportunities for EUROcleftNet:** This workshop was aimed to discuss the translational application of the recent findings on the genetics of orofacial cleft and the development of new diagnostic tools (cleft-chip), and to explore the possibility of raising funds from the next calls of H2020-PHC-2015 and H2020-MSCA-ITN-2015.

The group initially considered the following H2020-PHC-2015-two-stage Sub calls of: H2020-PHC-2014-2015 published on 23-07-2014 and having stage-1 deadline on 14-10-2014:

- PHC-03-2015 “Understanding common mechanisms of diseases and their relevance in co-morbidities”;
- PHC-04-2015 “Health promotion and disease prevention: improved inter-sector co-operation for environment and health based interventions”;
- PHC-24-2015 “Piloting personalised medicine in health and care systems”.

**Scope of the Workshop:** After brief discussion the group agreed that, although cleft research could possibly be a subject for these three topics, in none of them cleft could have been perfectly fitting and a competitive theme. The group then focused on the next MSCA Innovative Training Networks (ITN) call, that has a deadline for application in four months (13-01-2015). MSCA-ITN programmes are intended to ensure the optimum development and dynamic use of Europe’s intellectual capital in order to generate new skills, knowledge and innovation, and are strongly aimed to improvement of career perspectives of early stage researchers (ESR) in both public and private sector. Considering that MSCA-ITN programmes are entirely bottom-up, the group agreed that basic and translational orofacial cleft (OFC) research could be a perfect theme for next call. In particular, the group agreed that a programme mainly dedicated to the translational application of the nowadays knowledge on OFC etiology towards the development of innovative diagnostic tools could be a strong and attractive theme for a bottom-up project. This tool could meet the need of clinical genetic settings for timing identification of syndromic OFC cases, in order to provide



precise recurrent risk assessment even before the complete presentation of proband's signs and symptoms. The initial idea of a programme focused on the development of an NGS-based diagnostic chip, including a wide panel of OFC-syndrome genes, was rejected after discussion. The group instead agreed that an exome sequencing chip would be preferred, as being cost-effective and including all human genes. The development of OFC-specific filtering system to help out in the search of putative causative variants could be a relevant outcome and a significant component for a successful MSCA-ITN programme.

**Non-academic partner participation:** The group agreed that in order to build up a competitive MSCA-ITN proposal the project should include the active and significant participation of non-academic units, including industrial, SME, and hospital partners. A balanced ratio between academic and non-academic partners would surely turn benefit the chance of success of the project. Moreover, the proposal would be particularly attractive if it was not restricted to limited number of OFC research niches, but rather based on an holistic approach. A need for a shift from reactive medicine to proactive approach was discussed, and a P4-medicine application to OFC was proposed. The P4-medicine approach involves the application of systems biology approaches in medical concepts, research and practice, and paves the way for an innovative, patient-centered and proactive practice of medicine that will be predictive, personalized, preventive and participatory rather than reactive. The group agreed that a successful ITN proposal in the OFC research field should include the training network for ESRs with programmes on Sequencing technologies (NGS, RNA-sequencing, ChIP-sequencing, Exon-sequencing, Chromatin-capture sequencing), Genome-wide association studies (GWAS), Animal husbandry, Developmental genetics, Epigenetics, Pheomics, and System biology (Computational biology and Statistical biology). Moreover, the programmes should include the contribute of Clinical genetic settings and patients organizations.

**Other considerations:** The group agreed that the proposal would consider mobility of ESRs as a key requirement, pay particular attention to gender balance, and promote public engagement of supported ESRs. Moreover, the proposal should include the active participation of partners from at least six different European countries, and have a 1:1 ratio between university and non-academic units.

The proposal would use OFC research field as example to create training programmes aimed to attract and retain research talents, develop state-of-the-art and innovative training schemes, promote sustainable career development in biomedical research and innovation, and focus on delivering new knowledge and skills.

**ACTION:** A draft of the proposal for H2020-MSCA-ITN-2015 will be distributed to participants within a month. Leaders for this draft proposal include Rubini, Dixon, Carels and Mangold.



## **EUROcleftNet Workshop B report: Novel *in-vivo* imaging**

- Ashraf Ayoub (U Glasgow, Scotland) CHAIR
- Colin Urquhart (DI4D, Glasgow, UK)
- Gareth Davis (E.C.O.)
- Joannis Pitas (U Thessaloniki, Greece)
- Maarten Koudstaal (Erasmus MC, Rotterdam)
- Martin Persson (UWE Bristol, England)
- Mohamed Daoudi (Lille, France)
- Peter Mossey (U Dundee, Scotland)
- Silvia Raucci (U Ferrara, Italy)
- William Davis (E.C.O.)
- William Shaw (U Manchester, England)
- Youri Anastassov (Med U Plovdiv, Bulgaria)
- Xiangyang Ju (U Glasgow, Scotland)

### **Introductory comments in relation to the work programme:**

The Workshop commenced with a presentation on 3D / 4D imaging by Maarten Koudstaal (Erasmus MC); followed by a discussion application is in response to the European commission research priorities of Horizon2020 PHC11-2015 “Development of new diagnostic tools and technologies: *in-vivo* medical imaging technologies”.

**Aims and concept :** The aim of any proposed project is to address the challenge of developing a non-invasive imaging method to quantify the distortion in facial movements. The study should deliver a sensitive and robust innovative *in vivo* imaging tool to characterise facial movements which will improve the diagnosis, and better inform the decision making process in the management of distorted facial movements. This cutting edge technology will overcome the limitations of the subjective assessment of facial movements, and thus will improve the quality of patients’ clinical care and at the same time contribute positively to the sustainability of healthcare delivery and growth of the European diagnostics sector.

**Background:** Despite the existence of advanced techniques for capturing facial expression, there is still insufficient information on the quantification of dynamics of facial movements for diagnosis and treatment planning. We agreed to focus on a tool to measure asymmetry, using unilateral Cleft Lip Palate (UCLP) and Facial Palsy as examples. Clinical assessment of facial movements to date has been subjective which lacks reproducibility and is prone to human error, and these subjective scoring methods do not address the dynamics of facial movements.

**Synergy with other national and international initiatives:** This project benefits from a multidiscipline international collaboration ranging from academia to industry, NGOs and EUROcleftNet. The results, expertise and activities from such collaboration will be both informed by and advice on existing expertise in the surgical correction of distorted facial movements.





**The UK:** The UK group combines expertises from 5 centres with track records of clinical studies and computing science research; and an innovative industry participant Dimensional Imaging (DI). Their innovative DI4D system has been clinically validated and applied clinically. Martin Persson was able to provide insight into the psychology of visible differences and appearance issues, including facial appearance have been studied extensively by the Bristol team.

**France:** The French surgical team LUH is dealing with both unilateral cleft lip palate and unilateral facial palsy in a National Reference Center created in 2007 and provides a leadership to the French Association for Facial Cleft Treatment (AFFF). They are pioneering a new framework for shape analysis of 3D face and 3D dynamics faces based on statistical shape analysis of facial surfaces.

**Greece:** The Greek team AUTH established an international expertise in the statistical analysis of dynamic 3D facial imaging. Recent works include the 4D facial point tracking of 3D/stereo human activity recognition using 3D information.

**Netherlands:** The University of Radboud (RU) team conducted a series of basic validation and reproducibility studies on the capture of the facial morphology of adults as well as young children and validated the concept of stereophotogrammetry in recording and analysing facial morphology. Furthermore, RU is one of the main centres in the Netherlands for the treatment of unilateral facial paralysis, and this centre also hosts one of the largest Dutch cleft teams.

**Bulgaria:** Bulgaria has a web based register, ALA, for facial anomalies with a network of 39 specialist users and more than 400 patients included in this register. The clinical data are available with pictures and video files for speech assessment. The surgical outcome in the register is structured on the base of an original clinical preoperative-postoperative scale for outcome measures of cleft repair for comparative studies between Ljubljana, Slovenia and Plovdiv, Bulgaria.

#### **Methods / Case Control Study design:**

**The face should be divided into** 5 zones to study facial movements forehead, eye, cheek, upper lip and lower lip. the overall distorted facial movements using the following grading scale:

- 1.No distortion;
2. Barely distorted;
3. Slightly distorted;
4. Moderately distorted;
5. Very distorted.

A panel of assessors chosen by the consortium will review the captured facial movements of the patients' group. Guided by the average norm and the mathematical measurements of the dynamics (4D) of facial movements of the control group, a comprehensive subjective grading will be conducted taking into consideration the severity, anatomical location, symmetry and shape of the abnormal facial movements.





The panel will be trained for calibration before the assessment session. In comparison with the control group, 4D images of UCLP & unilateral facial paralysis cases would be assessed and scored. The panel will be asked to grade the quality of the dynamics of each of the four facial movements considering the symmetry, speed, magnitude, and pattern affecting each of the 10 anatomical regions of the face.

This study will aim to recruit 500 patients who suffer from abnormal facial movements due to the scarring following the surgical repair of unilateral cleft lip and palate “UCLP” of an age range 12 to 15 years and 500 patients who suffer from unilateral facial palsy of an age range from 20 to 40 years. An equal number of a controls of the same age, sex, and geographic location would be recruited from the five collaborating EU countries (UK, Bulgaria, France, Greece, The Netherlands).

The Dynamic 3D imaging system (4D) installed at the 5 EU centres will be used for capturing facial movements. A facial template (template mesh) will be transformed into the first 3D facial model of the expression sequence and will be tracked in the rest of the 3D models in the sequence; the tracked facial template (mesh) of the sequence will be recorded and pre-processed for analysis of facial movements.

#### **Impact**

***New in vivo diagnostic tools and methods providing more accurate, less invasive, more reliable and earlier disease diagnosis, prediction or response to therapy, leading to improved clinical decisions and outcomes.*** This will empower the healthcare profession with a new and innovative diagnostic imaging tool that will improve the quality of health care delivery in Europe to a wide range of patients.

This proposal is designed to lay the foundation for addressing important quality of life and inequalities issues such as disfigurement and appearance dissatisfaction. This is consistent with the European strategy of developing sustainable actions (European Commission Communication ‘EUROPE 2020 - A strategy for smart, sustainable and inclusive growth’, March 2010) in technology and health. Since this project will be able to enhance the provision of care, it consequently addresses key areas of European focus such as disability (European Commission Communication ‘European Disability Strategy 2010-2020: A Renewed Commitment to a Barrier-Free Europe’, November 2010), children’s rights (European Commission Communication ‘Early Childhood Education and Care: Providing all our children with the best start for the world of tomorrow’, February 2011), and social exclusion (European Commission Communication ‘The European Platform against Poverty and Social Exclusion’).

#### **ACTION:**

The group will prepare a proposal for submission for H2020-PHC-2015-two-stage and having stage-1 deadline on 14-10-2014: and a second proposal will be prepared for H2020-MSCA-ITN-2015. This will be led and co-ordinated by Ashraf and Yang.



## **EUROcleftNet steering group meeting: Saturday, Sept. 13<sup>th</sup>**

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9:00 – 11:30      Agenda EUROcleftNet group meeting

1. Strategic planning for the future (assuming we get an extension)
2. Reports from new partners (Plovdiv and Ferrara)
3. Mid Term Report and implications (circulate in advance)
4. SVE programme for strategic support
5. Reports from ECO (incl. Gateway) and overlap with COST
6. Interaction with EUROCAT
7. Trans - Atlantic links
8. Future EUROcleftNet events
9. Publicity / dissemination / website / Newsletter

### **Meeting report**

1. **Strategic planning for the future in EurocleftNet:** The presentations and workshop yesterday were regarded as an excellent illustration of the expertise and synergies within EUROcleftNet. These provided an illustration of research potential across the network in the two key areas that were discussed. It was also felt that the possibility of obtaining a research grant funding beyond the age 2020 program e.g. through the Marie **Skłodowska**-Curie actions / program offers other opportunities.
  - **ACTION: The strong links with nonacademic partners was also an important element and everyone was encouraged to involve industry, charities and non-governmental organisations and to seek grant funding opportunities either as small groups or in larger collaborations.**
2. **Reports from new partners:** The last EUROcleftNet conference was held in Plovdiv Bulgaria in September 2013. Since then there has been a boost with in themultidisciplinary Plovdiv team and they have encouraged their Easter in and southern European partners. They were also very grateful for the publicity generated through the EUROcleftNet conference and the fact that it raised the profile within Bulgaria. It is hoped that this will lead to changes at ministerial level in due course.
  - On behalf of Ferrara (Italy), Michele Rubini reported that the potential for ongoing collaborative research in Europe was boosted by the experiences of his team in the Yoker net collaboration. One of the main drivers of the genetic / genomic successes in Europe was the previous year of Cran S&P five project whereby DNA was collected in a number of European





- countries. This is potentially a very powerful archive of trios data for future research into the aetiology of all FC and can be used for future collaborative research grant applications.
- Both Plovdiv and Ferrara have successfully applied for membership of EUROcleftNet so that Italy and Bulgaria are now confirmed as partners and make yearly Rubini and Youri and asked to self have joined the euro clad net steering committee. Both appealed to partners to use their expertise in collaborative initiatives and this can be facilitated by the short visits and exchanges scheme (SVE).
3. **Mid-term report and implications:** there was very positive and constructive feedback from the peer review of our EUROcleftNet program. We are hopeful that this will allow the network to continue and build on the successes of the first three years. Apart from the grant applications and ongoing activities in the SVE programs, there will be future activities through further conferences and workshops plus ongoing expansion of the Gateway directory of resources.
  4. **SVE program:** a number of initiatives have been supported by the SVE program and the feedback from these has been very positive examples relevant to discussions yesterday were the new collaborations seeded by the SVE program that has led to the application for the in vivo 3D / 4D imaging application for H2020; and allied to that there has also been a very productive genetic collaboration between Ferrara, Bonn and Nijmegen.
- **ACTION:** *A pending application from FEDERICA CONTE, Ferrara to Nijmegen was discussed and this is to be forwarded to ESF asap.*
- **Reports from ECO and COST :** One of the most prolific partners in EUROcleftNet remains the European cleft organisation (ECO) and they have worked effectively in partnership on many fronts. This has been mutually beneficial and two of the significant successes have been the collaborative work on these European standards project (CEN) and the Gateway directory of resources. Kate we know has 65 class teams on board and is continuing with an online questionnaire, expanding to other languages with the EUROcleftNet aims and objectives and their SVE scheme translated into multiple languages. There was however an appeal for further translations, one of which is Italian and Paola Franceschelli volunteered to assist.  
**ACTION: Paola Franceschelli to carry out the translation to Italian**
  - The COST programme spearheaded by Martin Persson was outlined and briefly this is a psychological and psychosocial approach to problems concerning body image and particularly facial appearance. COST are also an ESF funded enterprise. Martin mentioned the December 2014 COST workshop in Kristianstad which will have a workshop on OFC, and among the issues that can be discussed there will be imaging, genetics and cleft surgery and their relative effects on facial appearance.
  - **ACTION:** *A number of delegates from EUROcleftNet have been invited to attend that meeting and an application will be submitted for funding to travel to this conference. Bill Shaw, EMMA*





*Southby, Ashraf Ayoub have all expressed an interest in attending. Invite all of these to confirm that they will attend, the dates of their arrival and departure and an estimate of the costs.*

5. **Interactions with EUROCAT:** Peter Mossey has recently been in dialogue with EUROCAT regarding common interest in aspects of OFC research and networking – not least the issue of primary prevention. It would you be useful to have closer links with your account and to involve them in future research and collaborative grant applications. EUROCAT are interested in the M-health platforms for development of **optimal reproductive health and primary prevention of birth defects** through SMS messaging: The Amsterdam workshop resulted in the identification of an opportunity for submission of an application to H2020 PHC-26; the development of an SMS messaging web based platform for peri-conceptual personalised care. The application emerging from this was submitted in April 2014 with the disappointing unfavourable outcome announced in September 2014.
  
6. **Trans Atlantic links:** Following the invitation of George Wehby to the EUROcleftNet conference in Bulgaria, the links with Jeff Murray and Azeez Butali in Iowa, plus Mary Marazita in Pittsburgh, we are in a strong position to set up and sustain genetic's research collaboration with our colleagues in the US.  
**ACTION: There is already a collaborative project planned on copy number variation CNV, and this plans to use Eurocran trios.**
  
7. **Future EUROcleftNet events:** mentioned above are the ongoing SVE program, the cost conference in December and the research grant applications that will be submitted. We are also aware of the Gothenburg European Claire Heft and Craniofacial Society meeting in June 2015. This offers an excellent opportunity for a pre-conference workshop since many of the EUROcleftNet delegates will be travelling to this meeting.
  - **ACTION: Message to Gothenberg meeting organisers to request the facility for a one day preconference workshop. Invite colleagues to suggest topics for this workshop.**
  
8. **Publicity – dissemination – newsletter – website:** it is important that all EUROcleftNet activities are acknowledged through publicity and all publications emerging from the collaborations sugar acknowledge EUROcleftNet now. Recent ECO newsletters have mentioned the productive collaboration with EUROcleftNet, and this is appreciated by ESF.

