GROWTH FACTORS IN CRANIOFACIAL DEVELOPMENT AND REPAIR

4–7 May 2006
Scandic Grand Marina
Marina Congress Center
Helsinki Finland

Local Organizers:

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Program

Thursday 4 May

• 13.00–18.00 Registration

• • 13.00–15.00 Coffee

• 15.00
Opening of the congress

Welcome address: Eero Vuorio (Turku)
Music: Aaro Turunen & Jenni Koskinen (Turku)

• 15.30
Working Group 1: Evolution and Development Part 1
Chairpersons: Ralf J. Radlanski and P. Eckhard Witten

15.30 Keynote Lecture: Jukka Jernvall (Helsinki): Growth factors as regulators of tooth shape during evolution

16.15 New insights in the function of BARX1 during multicuspid tooth development
Miletich I, Kai Y, Sharpe PT

16.35 Ectodermal dysplasia gene (Eda) antagonizes BMP activity and upregulates expression of Shh
Fliniaux I, Mikkola M, Pummila M, Laurikkala J, Schneider P, Thesleff I

16.55 The expression of RUNX2, MYF5 and SOX9 during prenatal morphogenesis of the mandible of the quail
Radlanski RJ, Renz H, Schneider RA

• • 18.00 Reception at the City Hall

• • 19.30 Dinner at FishMarket (optional)
Friday 5 May

• 08.15–16.00 Registration

• 08.30

Working Group 1: Evolution and Development Part 2
Chairpersons: Ralf J. Radlanski and P. Eckhard Witten

08.30 Keynote Lecture: Ophir Klein (San Francisco): Sproutying new teeth: regulation of FGF signaling in dental development

09.15 Expression of the dlx gene family during formation of the cranial bones in the zebrafish (Danio Rerio): Differential involvement in the visceral skeleton and braincase
Verreijdt L, Debiais-Thibaud M, Borday-Birraux V, Van der Heyden C, Sire J-Y, Huysseune A

09.35 Gene expression for tooth renewal in osteichthyan fish: Developmental and evolutionary origins of a dental lamina
Smith MM, Hulsey CD, Streelman JT, Fraser GJ

09.55 Bony fish as "models" for bone and cartilage development: cribs, challenges and changes
Witten PE, Baeverfjord G

• • 10.15 Coffee

• 10.45

Working Group 2: Stem Cells and Hard Tissue Formation
Chairpersons: ALJJ Bronckers and Kaj Fried

10.45 Keynote Lecture: Christine Hartmann (Vienna): A Wnt canon orchestrating skeletal development

11.30 Late molar and bone phenotype in homozygous MSX2 Ki mice
Berdal A, Aioub M, Descroix V, Robert B, Lézot F, Néfussi JR
11.50 Bone marrow cells can differentiate into ameloblast- and odontoblast-like cells without cell fusion

12.10 Pericytes of dental pulp: A new model to study reparative dentinogenesis
Alliot-Licht B, Bluteau G, Lopez-Cazaux S, Guicheux J

• • 12.30 Lunch

13.30 Keynote Lecture: Kalervo Väänänen (Turku): Regulation of bone remodelling

14.15 Coexpression of Rgs5 and Notch3 mRNA in the pericyte-vSMC axis after pulp injury
Løvschall H, Mitsiadis T, Jensen KH, Kjeldsen AL, Poulsen K

14.35 FGF and TGFβ1 signaling in normal and mutated osteoprogenitors
Ferretti P, Santos-Ruiz L

14.55 Extracellular matrix mineralization in osteoblast cultures is dually inhibited by both pyrophosphate and its upregulation of osteopontin
Addision WN, Azari F, Kaartinen MT, McKee MD

• • 15.15 Coffee

15.30–17.30

• Poster sessions
  15.30–16.30 Even numbers
  16.30–17.30 Uneven numbers

• Poster session WG 1
  1. Drozd: Pharyngeal dentition in asp: a new model for early stages of pharyngeal teeth development?
  2. Horacek, Frantisek S, Vrabcová S: Why tribosphenic?
  5. Lohi M, Sharpe PT: NF-κβ-WNT interactions in tooth development.
11. Hovorakova M, Lesot H, Peterkova R, Peterka M: The complex origin of a tooth can cause its developmental vulnerability and explain the formation of supernumeraries.
19. Zoupa M, Seppälä Maisa, Mitsiadis T, Cobourne M: Tbx1 is expressed at multiple sites of epithelial-mesenchymal interaction during early development of the facial complex.

• Poster session WG 2
30. Rehn A, Chalk A, Wendel M: Regulation of small leucine-rich proteoglycan osteoadherin by transforming growth factor (beta)-family cytokines.

* Poster session WG 3
33. Brett PM, Nibali L, D’Aiuto F, Griffiths GS: The role of IL-6 polymorphisms in the predisposition to and pathogenesis of periodontal disease.
38. Veistinen L, Arte S, Thesleff I, Kreiborg S, Nieminen P: Genetic mapping of the novel syndrome with supernumerary teeth and craniosynostosis (Kreiborg-Pakistan Syndrome).
• Poster session **WG 4**


47. Amer DAM, Jones E, Yang X: The effect of cytomodulin-1 on the proliferation and differentiation of human bone marrow mesenchymal stem cells.

• 18.15 Boat-trip to Suomenlinna Sea Fortress (optional)
Saturday 6 May

08.30  • **Working Group 3: Genetic Anomalies**
Chairpersons: Agnés Bloch-Zupan and Cristina Manzanares-Céspedes

08.30 Keynote lecture: Aarno Palotie (Helsinki): New opportunities provided by the genome project for the characterization of complex diseases

09.15 Keynote lecture: Pekka Nieminen (Helsinki): Signalling pathways and tooth agenesis

• • 10.00 Coffee

10.30 Tooth phenotype in DiGeorge syndrome, the role of TBX1 on tooth development and enamel formation
Catón J, Mitsiadis TA

10.50 Odontological and craniofacial manifestations in a molecular screened population with Gorlin syndrome
Gorry P, Viguier PA, Peycru L, Marteau JM

11.10 Dental findings in healthy female carriers of a splicing mutation in the NEMO gene
Nordgarden H, Storhaug K

11.30  • Working Group 4: **Tissue Regeneration and Clinical Application**
Chair: Michel Goldberg

11.30 Keynote lecture: Misako Nakashima (Aichi): The application of tissue engineering to regeneration of dentin and pulp in endodontics

• • 12.15 Lunch
13.15 Characterization of adrenomedullin in dental tissues and cells
Graham L, Smith AJ, Sloan AJ, Kapas S, Nor J, Cooper PR

13.35 Activation of toll-like receptor 2 by lipoteichoic acid induces CCL2, CCL7, CXCL2, and CXCL10 chemokine expression in human odontoblasts, while decreasing type 1 collagen, DSPP and TGF-β1

13.55 Odontoblast and mesenchymal progenitors implanted in the pulp of mouse incisors induce reparative dentin formation
Lacerda S, Goldberg M, Kellerman O, Poliard A

• • 14.15 Coffee

14.45 Keynote lecture: Hannu Aro (Turku): Clinical experience of randomized trials of rhBMP-2 therapy in enhancement of long-bone fracture healing

15.30 Formation of new bone during vertical distraction osteogenesis of the human mandible is related to the presence of blood vessels
Amir LR, Becking AG, Jovanovic A, Perdijk FBT, Everts V, Bronckers ALJJ

15.50 The bone regenerative potential of matrix-bound parathyroid hormone

16.10 Individual craniofacial reconstruction with new composite materials
Peltola MJ, Tuusa SM-R, Tirri T, Vallittu PK, Aitasalo K
Program of the MC meeting

Sunday May 7

09.00–12.00
* Management Committee Meeting COST Action B23

1. Welcome
2. Adoption of the agenda
3. Approval of the Minutes of the 5th MC meeting in Athens (Nov 4-6 2005)
4. COST Office news
5. Chairman's greetings
6. STSMs: Analysis of 2006 missions
7. Dissemination of the results
8. Preparation of the Annual Report
9. Proposal and discussion for a new COST Action
10. Organisation of 7th MC meeting (Brussels)
11. Web-site of the COST Action B23
12. Organization of future meetings (time and place)
13. Any other business