



Program - NNPC2011

Monday, June 6

Arrival
Registration
Mounting posters
Dinner 1900
Mingling / get together

Tuesday, June 7

8.45-9.00 B.S. Paulsen: Welcome address.

Session 1: Bioactive natural products

Session leader: Karl Egil Malterud

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|-------------|---|-----|
| 9.00-9.45 | D. Tasdemir: Natural products and neglected diseases.
Where are we now? <i>Invited lecture.</i> | 11 |
| 9.45-10.15 | P. Vuorela et al.: Anti-chlamydial natural products. | 001 |
| 10.15-10.30 | M. Tadesse: Antimicrobial compounds from cold-water
marine invertebrate species. | 002 |
| 10.30-10.45 | Coffee break | |
| 10.45-11.15 | P. Basnet, I. Tho and N. Skalko-Basnet: Curcumin, a pleiotropic
molecule from turmeric powder (curry spice):
Liposomal formulation targeted for the treatment of vaginal
inflammation. | 003 |
| 11.15-11.45 | A. Fallarero, M. Skogman, J. Kujala and P.M. Vuorela: Facing
the challenge of emerging biofilm infections with the aid of
natural products. | 004 |
| 11.45-12.00 | J.G. Holler, H.-C. Slotved, S.B. Christensen and P. Mølgaard:
Chilean medicinal plant antibacterials and <i>NorA</i> efflux pump
inhibitors against resistant <i>Staphylococcus aureus</i> strains. | 020 |

12.00-12.15 T.E. Michaelsen, B. K. Langerud, K. T. Inngjerdingen, H. Rasmussen, T. K. Olsen, I. Austarheim, T.E. Grønhaug, I. S. Aaberge, D. Diallo and B. S. Paulsen: Pectic polysaccharides isolated from Malian medicinal plants can protect for bacteraemia and clinical symptoms in a mouse pneumococcal infection model. 006

12.15-14.00 Lunch and poster session

Session 2: Bioactive natural products II

Session leader: Pia Vuorela

14.00-14.45 P. Magiatis: Ancient sources of new drugs: the concept of archaeopharmacology. *Invited lecture.* I2

14.45-15.15 A. Backlund: Applications of ChemGPS-NP. 007

15.15-15.45 S. Omarsdottir and co-workers: Bioprospecting of marine invertebrates from Icelandic waters. 008

15.45-16.00 Coffee break

16.00-16.30 L. Pohjala and P. Tammela: Aggregating behaviour of phenolic compounds – a source of false bioassay results? 009

16.30-16.45 M. Jordheim and Ø.M. Andersen: The rise and fall of anthocyanins. 010

16.45-17.00 I. Skaar, Ø.K. Leidland, M. Jordheim and Ø.M. Andersen: Anthocyanin equilibrium forms. 011

17.00-17.15 C. Alsmark: Lateral gene transfers as potential targets for new drugs against human parasites. 012

19.00 Dinner

Wednesday, June 8

Session 3: Synthesis of natural products

Session leader: Trond Vidar Hansen

09.00-09.45 D. Schinzer: Synthetic studies towards the total synthesis of Sorangicin A. *Invited lecture.* I3

09.45-10.15 L.-L. Gundersen, J. Kania, H.H. Odden, A. Proszenyak and A. Vik: Synthesis directed towards agelasines and asmarines; marine antibiotics. 013

10.15-10.45 T. Anthonsen and B. Noziere: Oxidation products of isoprene. Isolated from plants, causing aerosols in the atmosphere. Synthesis by biocatalysis. 014

10.45-11.00 Coffee break

Session leader: Yngve Stenstrøm

11.00-11.30 A.M. Langseter and Y. Stenstrøm: Natural product synthesis based on ω -3 polyunsaturated fatty acids. 015

11.30-12.00 T.V. Hansen: Stereoselective synthesis of polyunsaturated natural products. 016

12.00-12.30 C. Skotte: Retrosynthesis of natural products with the aid of SciFinder. S

12.30-14.00 Lunch and poster session

Session 4: Teaching of pharmacognosy and natural products chemistry

Session leader: Berit Smestad Paulsen

14.00-14.15 A.B. Samuelsen: Pharmacognosy's place in the 5-year integrated Master's degree programme at University of Oslo. T01

14.15-14.30 Y. Holm: From pharmacognosy to pharmaceutical biology. T02

14.30-14.45 A. Backlund: Graduate and undergraduate teaching & training in Uppsala T03

14.45-15.00 A.K. Jäger and J. Soelberg: E-learning botany? T04

15.00-15.15 S. Omarsdottir and E.S. Olafsdottir: Pharmacognosy and herbal medicines education in Iceland. T05

15.15-15.30 Coffee break

15.30-16.30 Discussion on teaching aspects

17.00-17.15 Coffee break

17.15-17.45 T. Anthonsen: Nordic Natural Product Chemistry. Historic perspective. H

20.00 Conference dinner

Thursday , June 9

Session 5: Bioactive natural products III

Session leader: Anne Berit Samuelsen

09.00-09.30	K.E. Malterud, H. Wangensteen, B.S. Paulsen and D. Diallo: Antioxidants from Malian medicinal plants.	017
09.30-10.00	E.S. Olafsdottir and co-workers: Complex heteroglycans from cyanobacteria – from lichens to the Blue Lagoon.	018
10.00-10.15	A.K. Jäger, A.S. Jeppesen and J. Soelberg: Medicinal plants in the Pamir mountains. The 3th Danish Pamir expedition.	019
10.15-10.30	I. Austarheim, T.E. Michaelsen, M. Inngjerdingen, D. Diallo and B.S. Paulsen: The bark of the Malian medicinal tree, <i>Cola cordifolia</i> , contains two novel pectin-like polysaccharides with immunomodulating properties.	005
10.30-10.45	Coffee break	
10.45-11.00	S. Jensen, S. Ómarsdóttir, H.M. Ögmundsdóttir, J.W. Jaroszewski and E.S. Ólafsdottir: Do Icelandic liverworts hold new drug candidates?	021
11.00-11.15	S.M.Ø. Solbak, T.R. Reksten, V. Wray, K. Bruns, O. Horvli, A.J. Raae, P. Henklein, P. Henklein, R. Röder, D. Mitzner, M. Nimtz, U. Schubert and <u>T. Fossen</u> : The intriguing host-pathogen interaction of human cyclophilin A and HIV-1 Vpr.	022
11.15-11.45	D. Diallo, B.S. Paulsen, A. Togola and R. Sanogo: Research and Development of Natural Products: Experience of Mali.	023
11.45-12.00	A.A. Strömstedt, R. Burman and U. Göransson: Cyclotides as proteolytic stable antimicrobial peptides.	024
12.00-12.15	M.Y. Yeshak, R. Burman, K. Asres and U. Göransson: Plant cyclotides from an extreme habitat: Cyclotides of East African highlands.	025
12.15-12.30	B.S. Paulsen: Closing remarks.	
12.30	Lunch	

Posters

Posters will stay up during the whole conference.

- P01 M.Bräunlich, T.E. Michaelsen, M. Inngjerdingen, W. Mabusela, Q. Johnson and B.S. Paulsen: *Artemisia afra*: Polysaccharides isolated from a South African medicinal plant.
- P02 N.H.T. Le, H. Wangensteen, K.E. Malterud and D. Diallo: Bioactive constituents of *Ximenia americana*, a Malian medicinal plant.
- P03 C. Nguyen, H. Wangensteen, K.E. Malterud and D. Diallo: Flavonoids from *Biophytum petersianum*, a Malian medicinal plant.
- P04 A.T. Pham, H. Wangensteen, B.S. Paulsen, K.E. Malterud and D. Diallo: Antioxidant and enzyme inhibitory properties of *Terminalia macroptera*.
- P05 S. Meskini, K.T. Inngjerdingen, I. Austarheim, N. Ballo, M. Inngjerdingen, T.E. Michaelsen, D. Diallo and B.S. Paulsen: Bioactive pectic polysaccharides from wild and cultivated *Vernonia kotschyana*.
- P06 E. Skare, Ø.M. Andersen and M. Jordheim: Correction of anthocyanin identity in blood orange (*Citrus sinensis* L. Osbeck).
- P07 K. Eikeland, M. Jordheim and Ø.M. Andersen: Sphagnorubins from peat mosses, *Sphagnum* spp.
- P08 M. Aursnes and T.V. Hansen: Synthetic studies towards protectin D1.
- P09 M.G. Jakobsen and T.V. Hansen: Synthetic studies towards synthesis of resolvin D1.
- P10 A. Vik, T.V. Hansen, A.K. Holmeide and L. Skattebøl: Synthesis of juniperonic acid.
- P11 Y.M.A. Mohamed and T.V. Hansen: The first total synthesis of methyl (5*Z*, 8*Z*, 10*E*, 12*E*, 14*Z*)-eicosapentaenoate.
- P12 S. Park, G. Sunithi, A. Teshome and U. Göransson: Microwave-assisted total synthesis of cystine knot cyclic peptide.
- P13 S.M.Ø. Solbak, T.R. Reksten, V. Wray, K. Bruns, O. Horvli, A.J. Raae, P. Henklein, P. Henklein, R. Röder, D. Mitzner, M. Nimtz, U. Schubert and T. Fossen: The intriguing host-pathogen interaction of human cyclophilin A and HIV-1 Vpr.
- P14 A.A. Strömstedt, R. Burman and U. Göransson: Cyclotides as proteolytic stable antimicrobial peptides.
- P15 D. Karlsson, A. Fallarero, I. Busygin, R. Leino and P. Vuorela: Cinchona alkaloids as butyrylcholinesterase inhibitors.
- P16 G. Brunhofer, A. Fallarero, D. Karlsson and P. Vuorela: Butyrylcholinesterase and natural products- new chances to combat Alzheimer's disease.
- P17 J. Kujala, A. Fallarero, M. Rajaratnam, J. Yli-Kauhaluoma and P. Vuorela: Naturally derived anti-biofilm compounds against *Staphylococcus aureus*.

- P18 M. Skogman, A. Fallarero, J. Chen, A. Määttänen, J. Peltonen, P. Vuorela and M.-L. Riekkola: Living cells of *Staphylococcus aureus* immobilized onto the capillary surface in electrochromatography: A tool for screening of biofilms.
- P19 H. Barsett, T.H. Aslaksen, L. Dalby-Brown and T.E. Michaelsen: Comparison of pectic polysaccharides from different plant parts of *Echinacea purpurea* (L.) Moench.
- P20 A.B. Samuelsen, A. Rieder, S. Grimmer, T. Michaelsen and S.H. Knudsen: Dietary fibre and health: The activities of barley beta-glucan and arabinoxylan in selected test systems.
- P21 R.B. El-Houri, X.C. Fretté, K.B. Christensen, D.E. Kotowska, K. Grevsen, K. Kristiansen and L.P. Christensen: Identification of PPAR γ agonists in root extracts of purple coneflower (*Echinacea purpurea*) by bioassay-guided fractionation.
- P22 G.C. Havnen, I. Sandøy Rødahl, L. Holst and H. Nordeng: Safety of *Echinacea* and elderberry during pregnancy – results from the Norwegian mother and child cohort study.
- P23 E. Ivarsen, X.C. Fretté, K.B. Christensen, R.G. Engberg, I.C.N. Thøfner, D. Liebhart, K. Grevsen and L.P. Christensen: Antibacterial and antiparasitic effect of extracts from the aerial parts of *Artemisia annua* and identification of possible bioactive compounds.
- P24 K.S. Svahn, L. Bohlin, B. Olsen, E. Chryssanthou and U. Göransson: Bio prospecting fungi in antibiotic rich bacterial environment.