

# BIOTECHNOLOGY & BIOENERGY WORKSHOP

The University of Minnesota (UMN) and the Norwegian University of Life Sciences (UMB)

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May 13-15, 2007  
Minneapolis/St. Paul, Minnesota

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## *THANK YOU TO...*

The Royal Norwegian Consulate General

The University of Minnesota  
College of Biological Sciences  
College of Food, Agricultural and Natural Resource Sciences  
Initiative for Renewable Energy and the Environment

The Norwegian University of Life Sciences

The Norwegian-American Chamber of Commerce

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UNIVERSITY  
OF MINNESOTA  
Driven to Discover<sup>SM</sup>



## Sunday, May 13, 2007

### **WELCOME RECEPTION**

Heritage Gallery  
McNamara Alumni Center  
200 Oak Street  
Minneapolis, MN 55455

17:45                      Guests of Radisson Hotel – meet Judd Sheridan in hotel lobby for  
escort to McNamara Alumni Center

18:00 – 20:00            *Hors d'oeuvres and refreshments*

Hosted by Royal Norwegian Consulate General and the University of Minnesota

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## Monday, May 14, 2007

### **WORKSHOP PROGRAM – BIOMASS and BIOENERGY**

Cargill Building for Microbial and Plant Genomics  
1500 Gortner Avenue  
St. Paul, MN 55108

07:30    Guests of Radisson Hotel – meet Todd Reubold in hotel lobby for transportation to  
the St. Paul campus

08:00    *Breakfast*

08:30    *Welcome and Overview*  
*Knut Hove, Rector, UMB*  
*Robert Elde, Dean, College of Biological Sciences, UMN*

08:45    *Report from Norwegian Centennial Chairs*  
*Judd Sheridan*  
*Odd Jarle Skjelhaugen*

09:00    *Session I: Research and Industrial Partners*  
*Moderator: Judd Sheridan*

**Team 1:** LiDAR-Based sampling procedures for regional forest biomass and carbon  
estimation (*no presentation; report in Addendum 2*)

**Team 2:** Ecological, technical, and economic aspects of Bioenergy based on forestry  
and agricultural resources  
*Dean Current*

**Team 3:** Liquefaction of biomass for biofuel production  
*Geoffrey Gilpin and Roger Ruan*  
*Bob Walker, Bixby Energy*  
*Biorefining Inc. representative (unconfirmed)*

10:00 **Break**

10:15 **Session IV: Research and Industrial Partners (continued)**

**Team 4:** Lignocellulose to biofuels  
*Vincent Eijsink and Simo Sarkanen/Steve Gantt*

**General Discussion:**

Biofuels Center Team as foundation for discussion of “value chain” for bioenergy-related teams

*Moderator: Kate VandenBosch*

12:00 **Lunch with Keynote Speaker**

*Gary Smaby*  
“Innovation by Design”

13:30 **Session III: Answering the Questions: Who Owns What? How to Get it Out?**

**Handling IP in transatlantic collaborations:**

- Case study: Enzyme IP  
*Vincent Eijsink and Simo Sarkanen/Steve Gantt*
- University perspective
  - UMB TTO – *Colin Murphy*
- Legal perspective – *Amy Xu*
- Industry perspective – *TBD*

14:30 **Break**

14:45 **Session IV: Answering the Questions: Who Owns What? How to Get it Out? (continued)**

**Bringing the technology to market:**

- Case study: Biorefining technology  
*Roger Ruan and Geoffrey Gilpin*
- University perspective: Commercialization issues
  - UMN – *Doug Johnson*
  - UMB – *Colin Murphy*
- Government perspective
  - Norwegian Ministry of Agriculture and Food – *Gaute Homb Lenvik*
  - Minnesota Dept. Trade – *Jeff Phillips*
- Industry perspective
  - *TBD*
- General discussion of IP and commercialization issues

16:45 Guests of Radisson Hotel – Depart for hotel (Prepare for Joint Reception)

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**JOINT RECEPTION WITH SEED FORUM**

Minneapolis Club  
729 Second Ave South  
Minneapolis, MN 55402

- 17:40                      Guests of Radisson Hotel – meet Todd Reubold and Judd Sheridan in hotel lobby for transportation to Minneapolis Club
- 18:00                      *Hors d’oeuvres and refreshments*
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**Tuesday, May 15, 2007****WORKSHOP PROGRAM – GENOMICS and BIOTECHNOLOGY**

Cargill Building for Microbial and Plant Genomics  
1500 Gortner Avenue  
St. Paul, MN 55108

08:00    **Breakfast**

08:30    **Overview**  
*Allen Levine, Dean of CFANS*

08:45    **Session I: Research and Industrial Partners**  
*Moderator: Odd Jarle Skjelhaugen*

**Team 1:** Functional genomics to advance dairy cattle health  
*Siri Kulberg and Scott Fahrenkrug*

**Team 2:** Mycotoxin prevention in cereal crops by enhanced host plant resistance  
*Åsmund Bjørnstad, Jim Anderson, and/or Howard Rines*  
*Industrial partner – Magne Gullord, Graminor*

9:30    **New Teams (possibilities)**

- Plant sciences (e.g. systems biology, plant hormones, model plants)  
*Trine Hvoslef-Eide, Jerry Cohen, Kate VandenBosch*
- Other (TBD)

10:15    **Break**

10:30    **Breakout sessions for research teams and industrial partners**

12:15    **Lunch with Keynote Speaker**  
*Tor Dahl*  
“Torske Klubben Fellowships – Lessons from the past, potential for the future”

13:30 *Session II: Student Mobility – Preparing Future Researchers and Entrepreneurs*

**Student mobility: progress, study/research models, next steps:**

- UMB – Summer University and other plans and challenges  
*Trine Hvoslef-Eide*
- UMN Panel
  - *Judd Sheridan* – Involving students in research teams  
“Integrated Bridge Model”
  - *Myrna Smith* – Fulbright opportunities for researchers and students
  - *Bill Ganzlin* – Experience bringing students to Norway
  - *Sophie Gladding, Nikki Shultz (unconfirmed)* – Challenges for recruiting UMN undergrads to study abroad
  - *Monika Zagar* – Perspectives from teaching Norwegian languages
- Student Panel – experiences, challenges

**Education of the new entrepreneurs:**

*Gary Smaby and students*

15:30 *Wrap-Up*

*Odd Jarle Skjelhaugen, Judd Sheridan*

- Reports from breakout sessions – next steps for research teams
- Industrial perspectives
- Next steps for chair program

***SPECIAL EVENT – by invitation only***

Campus Club – 4<sup>th</sup> Floor  
Coffman Memorial Union  
300 Washington Avenue South  
Minneapolis, MN 55402

17:15                      Guests of Radisson Hotel – meet Todd Reubold in hotel lobby for transportation to Campus Club

17:30                      ***Dinner and entertainment***

***ADDENDA***

*Available for pick-up at workshop*

***Addendum 1***

Participants

***Addendum 2***

Team Summaries