**NSF I/UCRC CR3 Industry Advisory Board Meeting**

**May 14-15, 2019**

**Groot Begijnhof Faculty Club, KU Leuven**

**3000 Leuven, Belgium**

**Monday, May 13, 2019**

**12:30 p.m. Bus leaves from the Begijnhof Hotel for Umicore Olen Optional Plant Tour**

**2:00 p.m. Plant Visit**

**6:30 p.m. Bus returns to KU Leuven – Dinner on your own**

**Monday, May 13, 2019 (EIAB Members Only)**

**6:45 p.m. EIAB Meeting – KU Leuven, Dept. MTM, Materials Engineering, Rm. 01.49**

**8:00 p.m. Dinner at Voltaire Restaurant, Jules Vandenbemptlaan 6a, 3001 Leuven, Belgium Tel:** [**32 (0) 16 20 44 43**](tel:+3216204443)

**Tuesday, May 14, 2019**

**8:00 a.m. Registration and Breakfast – *Hal Lemaire***

Getting On-Line - Life Forms

**8:45 a.m. Opening Remarks – *Lemaire***

*B. Blanpain*

Opening Remarks: IAB

*M. Bauer*

CR3 NSF Assessment Coordinator’s Update

*S. Shipp*

CR3 Updates

*B. Mishra*

**9:15 a.m. Funded Project Updates – *Lemaire***

9:15 a.m. A: Optimization of Concrete Mixtures for 3D Printing (KUL)

*G. Beersaerts, Y. Pontikes*

9:35 a.m. B: Near Real Time Sub-ppm Detection of Elements in Pure Metals/Alloys New (WPI)

*S. Bong, Y. Wang*

**9:55 a.m. Coffee Break – *Hal Lemaire***

**10:10 a.m. Focus Group Sessions for A & B – Two parallel sessions**

A: Optimization of Concrete Mixtures in 3D Printing (Umicore)

***Lemaire***

B: Near Real Time Sub-ppm Detection of Elements in Pure Metals/Alloys (East Penn)

***Georges Lemaître***

**11:10 a.m. Funded Project Updates – *Lemaire***

11:10 a.m. C: Copper Separation from Steel (WPI)

*H. Jin, B. Mishra*

11:30 a.m. D: Moisture Analysis of Heterogeneous Solid Material Flows – New (KUL)

*R. Chukka, B. Blanpain*

**11:50 a.m. Lunch – *Infirmerie***

**Company Presentation**

**1:10 p.m. Focus Group Sessions for C & D – Two parallel sessions**

C: Copper Separation from Steel (SMS)

***Swerius***

D: Moisture Analysis of Heterogeneous Solid Material Flows (Gopher)

***Georges Lemaître***

**2:10 p.m. Funded Projects Updates – *Lemaire***

2:10 p.m. E: Vacuum Distillation of Complex Lead Bullion – Final (CSM)

*E. Tshijik Karumb, P. R. Taylor*

2:30 p.m. F: Optimized Sorting and Separation Technologies for Remanufacturing with Product Centric Recycled/Reclaimed Scrap – New (WPI)

*B.* *Mishra, D. Apelian*

**2:50 p.m. Coffee Break *– Hal Lemaire***

**3:05 p.m. Focus Group Sessions for F & G – Two parallel sessions**

F: Optimized Sorting and Separation Technologies for Remanufacturing with Product Centric Recycled/Reclaimed Scrap (US ARL)

***Swerius***

G: Alternative Fluxes for Lead Bullion Refining – starting June 2019, FG only (Metallo/CSM)

***Georges Lemaître***

**4:05 p.m. Funded Projects Update – *Lemaire***

4:05 p.m. H: Paint Sludge (CSM)

*V. Vaccarezza, C. Anderson*

4:25 p.m. I: Electro-Oxidation of Metals & Inorganics in Metallurgical Operations

(KUL)

*P. Subramanian, J. Fransaer*

**4:45 p.m. Focus Group Sessions for H & I – Two parallel sessions**

H: Paint Sludge (GM)

***Swerius***

I: Electro-Oxidation of Metals & Inorganics in Metallurgical Operations

(Umicore)

***Georges Lemaître***

**5:45 p.m. Adjourn**

**6:30 p.m. Reception and Dinner - *Infirmerie***

**Faculty Club, Groot Begijnhof 14, 3000 Leuven**

**Tel. 0032(0)16 32 95 00**

**Wednesday, May 15, 2019**

**7:30 a.m. Breakfast – *Hal Lemaire***

**8:00 a.m. Funded Project Update – *Lemaire***

J: Online Slag and Bullion Analysis by LIBS (KUL)

*E. François, B. Blanpain*

**8:20 a.m. Focus Group Session for J**

J: Online Slag and Bullion Analysis by LIBS (Umicore)

***Lemaire***

**9:05 a.m.** **Initial New Project Proposal Presentations / Review – *Lemaire***

20-00 Contactless Flow Measurement of Molten Materials (Gopher)

20-01E\* Paint Sludge Recycling Project 1 Year Extension (GM/CSM)

20-02R\* Recuperation of Energy from Molten Slags (Metallo)

20-03R\* Study on the Effect of Cooling Speed on the Microstructure of Solid Slag (Metallo)

*\* E – -Extension; R – Resubmission*

**9:50 a.m. Project Planning / Collaboration discussion – *Lemaire***

*M. Bauer – Chair*

**10:20 a.m. Coffee Break – *Hal Lemaire***

**10:35 a.m. IAB Meeting – Closed Session**

*M. Bauer – Chair*

***Lemaire***

**10:35 a.m. Center Directors Meet with CR3 IAB Guests and Potential Members**

***Swerius***

**12:05 p.m. Lunch**

***Infirmerie***

**1:35 p.m. IAB Debrief with Directors**

***Lemaire***

**2:35 p.m. Meeting Adjourns**

***Optional Activities – Wednesday, May 15, 2019***

**3:00 p.m. Tour of KUL R&D Facilities Led by KUL Research Students**

**Q&A Session for Students asking Industry**

**6:00 p.m. Walking Tour en route to Dinner (Self-Pay)**

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