

**Agenda**  
**AD Network Research Colloquium**  
**“BEYOND BIOGAS”**  
*Manchester, 23<sup>rd</sup>-25<sup>th</sup> January 2019*

**EVENING: Wednesday 23<sup>rd</sup> January**

18.30-  
20.30

**DRINKS RECEPTION – Manchester Museum (Building 44)**

**DAY 1: Thursday 24<sup>th</sup> January**  
**University of Manchester, Barnes Wallis Room (Building 9)**

8.15-  
8.45

Tea and Coffee

8.45-  
8.50

**WELCOME TO THE AD NETWORK RESEARCH COLLOQUIUM**  
**Professor Charles Banks**

**Flash Presentations**  
**5 minute presentations on academic work from across the UK**  
**Chair: Ms Sarah Farthing**

8.50-  
9.00

Ms Sarah Farthing – University of Nottingham  
*Assessing the feasibility of hydrothermal carbonisation (HTC) for the treatment of AD digestate*

9.00-  
9.10

Dr Matthew Reilly - Harper Adams University  
*Electrocoagulation for recovery of nutrients and water from digestate*

9.10-  
9.20

Dr Raffaella Villa - Cranfield University  
*Engineering ammonia resilience*

9.20-  
9.30

Dr Maria Westerholm - Swedish University of Agricultural Sciences, Uppsala  
*Unraveling novel syntrophic propionate oxidizing candidates enriched from high-ammonia biogas digesters*

9.30-  
9.40

Dr Anna Alessi – University of York  
*The Power of Small: Microbial Community Analysis during CO<sub>2</sub> Biomethanisation*

9.40-  
9.50

Dr Robert Lovitt – Swansea University  
*Resources Recovery and Digestate Utilisation*

9.50-  
10.00

Dr Ying Zhang - University of Nottingham  
*Biogas methane as a feedstock for a sustainable bioprocessing*

10.00-  
10.10

Dr Robin Curry - Queen's University Belfast  
*Life Cycle Assessment (LCA) of coupled Anaerobic Digestion (AD) and Gasification/Pyrolysis system using the Anaerobic Biorefinery concept*

10.10-  
10.20

Dr Marie Kirby - Harper Adams University  
*Dry anaerobic digestion as a valorisation method for chicken manure on-farm*

10.20-  
10.30

*Questions*

10.30-  
11.00

REFRESHMENTS

<b>Session 1</b> <b>ADVANCED AD FOR EFFLUENT TREATMENT</b> <b>Chair: Dr Matthew Reilly</b>	
11.00-11.30	<b>KEYNOTE AM:</b> Professor Tom Curtis – University of Newcastle <i>Using Microbial Ecology and Ecological Theory To Engineer Biology Now and in The Future.</i>
11.30-11.55	Prof. Dr. Ir. Jules Van Lier - Delft University of Technology <i>Exploring Non-Conventional Applications</i>
11.55-12.20	Professor Bruce Jefferson - University of Cranfield <i>Understanding the challenges in implementation of anaerobic move based flow sheets'</i>
12.20-12.45	Professor Vincent O'Flaherty – NUI Galway <i>Scale-up stories: high-rate ambient temperature AD for wastewater treatment</i>
12.45-13.45	LUNCH
<b>Session 2</b> <b>OPTIMISATION OF DIGESTER METABOLIC PERFORMANCE</b> <b>Chair: Dr Maria Westerholm</b>	
13.45-14.10	Professor Jerry D Murphy - University College Cork <i>The role of biogas in greening the gas grid</i>
14.10-14.35	Dr Jan Dolting – University of Newcastle <i>The holy grail: anaerobic treatment of domestic wastewater at low temperatures</i>
14.35-15.00	Dr Yue Zhang - University of Southampton <i>Competing demands for trace elements in anaerobic digesters</i>
15.00-15.25	Professor Paul Scherer - Hamburg University of Applied Sciences <i>A new Concept for Trace Element Supplementation of Biogas Plants as Based on Microbial Cell Counts and Retention Time</i>
15.25-16.15	REFRESHMENTS AND ECR POSTER SESSION
16.15-16.40	Professor Orkun Soyer - University of Warwick <i>Methanogenic microbial community dynamics from natural and synthetic systems</i>
16.40-17.05	Professor Anna Schnürer - Swedish University of Agricultural Sciences <i>Substrate directed management for optimized biogas process performance</i>
17.05-17.30	Professor Sonia Heaven - University of Southampton <i>Ammonia – technical challenges and solutions for high nitrogen substrates</i>
17.30	CLOSE
19.30 for 20.00	<b>CONFERENCE DINNER – Christie's Bistro (Building 51)</b>

**DAY 2: Friday 25<sup>th</sup> January**  
**University of Manchester, Barnes Wallis Room (Building 9)**

8.30-9.00	Tea and Coffee
9.00-9.05	<b>WELCOME BACK TO THE AD NETWORK RESEARCH COLLOQUIUM</b> <b>Professor Charles Banks</b>
<b>Session 3</b> <b>ALTERNATIVES AND COMPLEMENTS TO METHANE AS AD PRODUCTS</b> <b>Chair: Dr Mark Walker</b>	
9.05-9.30	Dr Alba Serna Maza – Urbaser, S. A. <i>Demonstration of an integrated innovative biorefinery for the transformation of Municipal Solid Waste into new BioBased products</i>
9.30-9.55	Mr Peter Speller – Fiberright Ltd <i>The Role of AD within a MSW Based Biorefinery</i>
9.55-10.20	Dr Andrew Ross – University of Leeds <i>Opportunities for the integration of Hydrothermal Carbonisation with Anaerobic Digestion</i>
10.20-11.15	REFRESHMENTS
11.15-11.45	<b>KEYNOTE AM:</b> Professor Willy Verstraete - University of Ghent <i>Anaerobic Digestion – Beyond the Paris Agreements</i>
11.45-12.10	Dr Mike Mason – Tropical Power <i>Rethinking Carbon - a new global role for anaerobic digestion</i>
12.10-12.35	Dr Les Gornall – PM PROjEN <i>Six AD Pieces</i>
12.35-13.00	Professor Richard Dinsdale - University of South Wales <i>Alternative Product Streams from Anaerobic Digestion</i>
13.00-14.00	LUNCH
<b>Session 4</b> <b>BIOGAS UPGRADING AND CARBON CAPTURE THROUGH BIOMETHANISATION</b> <b>Chair: Dr Yadira Bajon Fernandez</b>	
14.00-14.30	<b>KEYNOTE PM:</b> Professor Irini Angelidaki - Technical University of Denmark <i>Biogas: An Important Process of the Bioeconomy</i>
14.30-14.55	Dr James Chong - University of York <i>Measuring microbial community changes in AD</i>
14.55-15.20	Professor Sandra Esteves – University of South Wales <i>High Rate Biomethanation Delivered by Mixed Microbial Cultures – Pathways and Performance</i>

15.20- 15.35	REFRESHMENTS
15.35- 16.00	Dr Simon Rittmann - University of Vienna <i>The physiology and biotechnology of pure culture biological methane production from H<sub>2</sub> and CO<sub>2</sub></i>
16.00- 16.25	Professor Michael Chesshire – Lutra Ltd. <i>In-Situ Biomethanation Pilot Project</i>
16.25- 16.50	Professor Charles Banks - University of Southampton <i>In-situ biomethanisation- results and opportunities</i>
16.50	Early Career Researcher Poster Awards
17.00	CLOSE