

**LAUDATIO FOR THE LINNEBORN PRIZE WINNER 2007: ANTHONY V. BRIDGWATER**

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We are honoring Tony Bridgwater with the Linneborn prize for his career and achievements in the field of biomass conversion. Tony was born in 1942 and earned his first degree on a BP scholarship at the University of Manchester Institute of Technology (UMIST). In 1963 he started his career in the BP Research Centre in Sunbury on Thames. He left to join Aston University in 1965 where he ascended through the ranks of research fellow, lecturer, senior lecturer, and reader, becoming a full professor in 1996. The group he leads at Aston is the Bioenergy Research Group (BERG) which has grown to over 25 members and has had an aggregated research income of about 18 million pounds since its formation.

His energy background after BP was in the challenging area of "Waste Recycling" at Aston and it had shifted into the thermochemical conversion of biomass by the late 1970s. I first met Tony in 1982 as a member of the organizing committee for the meeting "Fundamentals of Thermochemical Conversion" which was held in Estes Park, CO. At this early time it was evident that Tony's enthusiasm and networking skills were going to be important to the development of bioenergy, and while R&D funding waxed and waned in the US, he took up the challenge of leading a long running series of thermochemical conferences that followed Estes Park with the cooperation of the entire community. He has chaired and organized 9 international bioenergy conferences each of which has made a significant statement on the progress and innovation in the field, while providing the basis for further advances.

I will return to the networking shortly as it is a large part of Tony's contribution. His individual contributions in the field of biomass pyrolysis to produce liquids and chemicals through advances in the design and development of fast pyrolysis reactors are well known. This research has led to significant advances in the fundamentals of biomass thermal conversion, and has trained many students from around the world. In 1998 he became director of the materials Energy and the Environmental Research Institute at Aston, and is currently the head of the Chemical Engineering and Applied Chemistry Department. The students, research associates, and visiting professors to BERG represent a global presence and the capabilities of BERG have resulted in many cooperative projects around the world. Additionally BERG has served a foundation for Tony to provide advice to companies, research organizations, and governments with many appointments as a project and programme evaluator in many countries. In the decade from 1988 – 1998 Tony was a visiting professor at the University of Groningen in the Netherlands.

With 44 years of experience (and counting) Tony's career has accommodated the shifting framework of how energy R&D is conducted in the latter half of the twentieth century and the start of the 21<sup>st</sup>. It has changed from R&D in centralized government fiefdoms to an open access academic and industrial collaborative framework for R&D. Tony and his team at Aston have been innovative pioneers in making the new model an exemplar by facilitating cooperation, while maintaining transparency and protecting intellectual property. By creating this new model for R&D based in Academia there have been many successes, one of which is highlighted through Tony's leadership of BERG, is his role as manager of the UK's SuperGen Biomass and Bioenergy consortium of more than 8 Institutions with a project value in excess of 6 million pounds which has been extended to 2011 by the Engineering and Physical Sciences Research Council (EPSRC).

With 350 plus papers and many books Tony's personal output is well recognized; but in the context of the Linneborn Prize the community contributions by Tony should be also be highlighted. Tony has worked to encourage and facilitate the growth of biomass and bioenergy through the participation of a wide fellowship of people and expertise. At the EC he has been an expert adviser to the programme managers of THERMIE and TREN and prior to that he was a coordinator of the Energy from Biomass R&D programme. Within the IEA (International Energy Agency) he has served as the task Leader for Pyrolysis for over 10 years, and in other roles on behalf of the UK.

Even those who have not met Tony before will have read the news letters from the EC's Thermal Network, and the Pyne Newsletter (a joint project of the IEA and the EC's Alterner program) and will be aware of the coordination that comes from Aston. It is difficult for each of us as individuals to be able to comprehend the breadth of Tony's contribution. With the Johanness Linneborn prize we have the opportunity as a community to say thank you for your individual research contributions and for providing such an astounding and successful example of leadership through cooperation in furthering the goals of renewable energy.