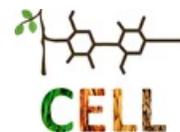




ACS Technical Division
Cellulose and Renewable Materials (CELL)

[http:// www.acscell.org](http://www.acscell.org)



Call for Papers

260th ACS National Meeting
August 16-20, 2020, San Francisco, CA

CELL Vice Program Chair:
Glenn M. Larkin, gmlarkin@mtu.edu

CELL Program Chair:
Wim Thielemans, wim.thielemans@kuleuven.be

Abstracts accepted: January 6 – April 20, 2020

Submit abstracts to the CELL Division at <http://maps.acs.org>. Inquiries should be directed to the symposium organizers or program chair.

Renewable Materials Bench to Market 1: Discovery & Market Validation

Organizers: Jim Baker jrbaker@mtu.edu, Mike Morley mcmorley@mtu.edu

As a Chemist in academia or industry you have discovered/invented a process or product. Your employer wants to bring your brainchild to market, especially if it is renewable or sustainable. But you are a scientist and may not be familiar with how to make this happen. There are many stages to commercialization that start with discovery (of intellectual property) and the niche it may fill in a consumer driven economy. This is the first symposium in a series that will take renewable materials from bench to market in the context of the emerging bioeconomy. Speakers are welcome who will discuss the process of discovery, R&D management, and market validation especially those drawing upon examples of successful commercialization in the renewable materials and bio-refinery sectors.

Renewable Materials Bench to Market 2: How Much Can We Make, How Fast, At What Cost?

Organizers: Glenn Larkin gmlarkin@mtu.edu

A principle hurdle in the commercialization of any process or product is the move of an invention out of the lab into the pilot plant, followed by scale up to production. The graveyard of innovation is full of ideas that failed to scale up due to insurmountable process difficulties or the inability to economically produce the material. This session is intended to address the pitfalls of scale up and the considerations to surmount them in order to successfully commercialize new renewable materials, especially from lignocellulosic feedstocks. Speakers that can draw on their experiences with both successful and unsuccessful scale ups in this sector are particularly welcome to submit abstracts for this symposium.

Renewable Materials Bench to Market 3: Advances in High-Throughput Biomass Characterization Methods.

Organizers: Tim Rials, trials@utk.edu, Jessica McCord, jfox16@utk.edu

Research and development efforts continue to address the challenge of meeting the demand for affordable lignocellulosic feedstock that meets the performance specifications associated with a growing biorefinery industry. An important component of the broader work has addressed the need for rapid analytical methods capable of accurately assessing important quality parameters of biomass at critical points in the feedstock supply chain. Presentations are invited that highlight recent advances and innovation in high-throughput analytical methods enabling the advancement of conversion platforms for production of fuels, chemicals and materials, including but not limited to: 1) analytical tools for laboratory analyses, 2) statistical modeling and data pretreatment, 3) biomass chemistry assessment and novel insight, and 4) development and demonstration of in-field, at-line and online sensor (IR, NIR, Raman, etc.) applications for feedstock/product quality monitoring.

Renewable Materials Bench to Market 4: Environmental Health & Safety

Organizers: Glenn Larkin gmlarkin@mtu.edu

Environmental Health and Safety Matters can prove to be a stumbling block in the commercialization of new renewable materials. Things such as environmental impact and permitting, and necessary regulatory approvals for worker and consumer health and safety can quickly turn a promising commercialization project into a nightmare many will not survive. Contributions are welcome that will address considerations regarding the sustainability, environmental health and safety, and human health and safety one encounters while bringing new renewable materials to market.

Renewable Materials Bench to Market 5: Lawyers Must Have Their Say

Organizers: Glenn Larkin gmlarkin@mtu.edu

No invention comes to market without the lawyers. Their fingerprints are all over the commercialization process from the protection of intellectual property, to development agreements, to licensing, to product liability, distribution agreements, and much more. The legal aspects of moving renewable materials from bench to market can be more than daunting to the inventor and others not fully engaged in the law. The intent of this symposium is to demystify the law as it pertains to commercialization of renewable products in the emerging bioeconomy. Speakers who are able to share their experiences with the intersection of the law and product commercialization (especially of new lignocellulosic derived products) are called upon to contribute to this symposium.

Renewable Materials from Bench to Market 6: Raising Funds to Take Inventions across the Valley of Death

Organizers: World Nieh world.nieh@usda.gov, Glenn Larkin gmlarkin@mtu.edu

The future of our society will be a bio-based economy where cellulosic and renewable materials will play a major role in most products. There are numerous ways to take an innovative new technology in cellulosic and renewable material across the valley of death towards commercialization. One way is forming a startup

company. Raising funds for a startup is a long, difficult and demoralizing process, often unfamiliar to the inventor. There are also hurdles for corporate academic scientists, who are increasingly asked to commercialize the products of their research, and for corporate researchers. This session will focus on an in-depth view of fund raising and how the series of seed funding work, particularly for startups and academics. Presenters from funding companies, government agencies and successful startups are especially welcomed. Discussion of corporate (external and internal) funding sources will also be welcome.

Renewable Materials Bench to Market 7: Supply Chain, Production, & Distribution Logistics

Organizers: Glenn Larkin gmlarkin@mtu.edu

Some people believe that the supply chain is the grim reaper of attempted commercialization. It is the first and last step of a successful product introduction into the market. Particularly so in the emerging lignocellulosic bioeconomy. There are many considerations with respect to the logistics of production and distribution that are alien to most chemists. This symposium welcomes contributions from those who wish to share their experiences and/or research in the areas of lignocellulosic renewable materials supply chain, production logistics, and distribution logistics. As the last of the planned series of symposia on the subject of bringing renewable materials from bench to market it is intended to close the circle of the material covered in the earlier symposia.

Nanocellulose materials horizons from bench-to-pilot-to-commercial scale

Organizers: Lucian Lucia lalucia@ncsu.edu, Lokendra Pal lpal@ncsu.edu

Breakthroughs in nanocellulose material research and development have offered unprecedented opportunities for a new generation of products to support sustainable growth and consumption. This symposium will focus on the evolution of nanocellulose-based materials from the bench-to- pilot-to-commercial scale in a variety of applications. We are targeting a blend of industry- academic and public dialogue to showcase the most promising avenues for commercialization.

Valorization of Renewable Materials

Organizers: Glenn Larkin gmlarkin@mtu.edu

A general oral session that will allow for topics that do not fit into the above meeting theme-oriented symposia.

General Poster Session

Organizers: Glenn Larkin gmlarkin@mtu.edu