Introducing the New and Existing Renewable Bioproducts Institute!

Georgia Tech and the Institute of Paper Science and Technology announced May 23 that they are broadening the scope and changing the name of IPST to the Renewable Bioproducts Institute. The move will enable the Institute to broaden its appeal to any potential research investor seeking to unlock the potential of biomass materials for a range of products including and beyond paper.

Read article

Georgia Tech’s Renewable Bioproducts Institute Receives $43.6 Million in Legacy Funding

The Institute of Paper Chemistry Foundation (IPCF) has conveyed a gift of $43.6 million to Georgia Institute of Technology. This major grant, one of the largest gifts in Georgia Tech’s history, affirms the Institute’s position as a leading driver of the future of the forest bioproducts industry.

Read article

Georgia Tech Announces Faculty Openings at RBI; Commences Global Search

In support of the Renewable Bioproducts Institute’s strategic thrusts, and to enrich its academic and technical contributions in aligned fields, Georgia Tech is announcing academic and research faculty openings in academic Schools and seeks qualified candidates for these positions.

Read article

Paper Tricentennial Building Capital Upgrades Planned

To facilitate the accomplishment of the Renewable Bioproducts Institute’s new mission, Georgia Tech plans significant upgrades to the Paper Tricentennial Building. Space will be re-designed to leverage the strength of the cross-functional capabilities of the participating schools and scientists in residence.

Read article
RBI Highlighted in GT President G. P. “Bud” Peterson Summer Tour of Georgia

The new RBI was highlighted in Georgia Tech President G.P. “Bud” Peterson’s Summer Tour of Georgia this month. Ports of call included Augusta, Sandersville, Dublin, Cascade, and Griffin, Georgia.

Read article

Recognition

Professor Ragauskas Accepts Gunnar Nicholson Award; heads for Oak Ridge/University of Tennessee

Professor Art Ragauskas accepted the Gunnar Nicholson Gold Medal award—the highest honor that the Association can bestow upon an individual—at TAPPI’s Awards Dinner April 29 at PaperCon in Nashville. The award is given to an individual or individuals who have made preeminent scientific and engineering achievements of proven applied benefit to the world’s pulp, paper, board, and forest products industries and the other industries that TAPPI serves.

Read article

Research

Renewable Bioproducts Institute (IPST) Announces 2015 Research Fellowships

RBI executive director Norman Marsolan has announced the award of twelve new fellowships for FY 15, which begins July 1. They were selected from among 30 applications. The awards will fund work from 17 faculty representing three engineering schools (Chemical and Biomolecular Engineering, Mechanical Engineering, Materials Science and Engineering) through up to four years of graduate student fellowship support.

Read article

Eight Sponsored Research Opportunities Offered

The Renewable Bioproducts Institute has announced eight opportunities for sponsored research for FY 15, beginning July 1. The projects are being offered exclusively to RBI members for individual or consortium-based sponsorship.

Read article
RBI Kickoff Symposium on Lignocellulosics Planned; Corrosion Symposium Also Scheduled

The Renewable Bioproducts Institute will inaugurate its cross-industry outreach program with a symposium on lignocellulosics on October 1-2 in Atlanta. Professors Matt Realff and Carsten Sievers will co-chair the event. Dr Preet Singh, who led the campus colloquium on lignocellulosics last December, will also host an industry symposium this fall, on corrosion.

Read article

RBI/Georgia Tech Attend Cellulosic Nanomaterials Workshop in Washington

Georgia Tech and the Renewable Bioproducts Institute were well represented at “Cellulosic Nanomaterials: A Path To Commercialization”, a workshop co-sponsored by the US Forest Service and the National Nanotechnology Initiative (NNI) in Washington DC on May 20-21. Adjunct professor Robert Moon spoke, and Norman Marsolan and associate professor Meisha Shofner were in attendance at the two-day event.

Read article

On-Line Professional Master’s Proposal Moves Forward

The proposed professional master’s degree in manufacturing leadership (PMML) has advanced to the Georgia Board of Regents. Initial approval was granted to authorize coursework development and preparation of a full proposal, due to the Board in the fall. Georgia Tech is targeting entry of the first cohort of students in the fall of 2015, pending necessary concurrences and approvals.

Read article

Senior Design Project Seeks To Redesign the Paper Bag

On April 24, a design team of five Materials Science and Engineering students in their senior year presented the results of a project to redesign the paper bag at the campus-wide Georgia Tech Capstone Design Expo. The initial hypothesis was that the point of attachment of handle to bag was the failure point; however, students found that the strength of the handle itself was the issue.

Read article
Georgia Tech Confers Degrees on Paper Science and Engineering Students

PSE students Parisa Pooyan and Brian Yun have earned PhD degrees in mechanical engineering, and graduated in May. Congratulations, Parisa and Brian!

See photos

Faculty

Professor Robert Moon Receives Adjunct Appointment from MSE

Robert Moon received an adjunct appointment from the School of Materials Science and Engineering on April 29. Dr Moon, an employee of the US Forest Service, is on campus on assignment to further advance technology development in cellulosic nanomaterials.

Read article

Faculty Members Address Technical Conferences

Professor Dennis Hess gave an invited talk on June 17 titled “Modification of Paper/Cellulose Surfaces to Control Fluid Wetting and Adhesion”.

Read article

Faculty Members Address Technical Conferences (continued)

Professor Carson Meredith gave an invited talk titled “Discovery and Engineering of New Adhesive Designs Based on Lessons From Nature”.

Read article
**Professor Cyrus Aidun Travels To Sweden In Support of Nicholson Exchange Program**

Cyrus Aidun, long-term faculty member of RBI and its predecessor institutes, is in Sweden this summer promoting the Gunnar Nicholson Exchange Program. The RBI endowment makes the exchange possible, through a generous gift from Dr. Gunnar W.E. Nicholson to the Institute in 1984.

Read article

**Recent Events**

RBI executive director Norman Marsolan attended TAPPI PaperCon in Nashville this past April. The events included the awards dinner at which Professor Art Ragauskas received the Gunnar Nicholson Gold Medal Award. Norman also attended the quarterly meeting of Agenda 2020 In Raleigh on June 4, where team updates on development of priority research roadmaps were featured.

Read article

**New Member**

The Renewable Bioproducts Institute welcomes its newest member, American Process, Inc.

Read article

**Museum**

The Museum continues to participate in events promoting papermaking. From Atlanta to Italy, museum staff are on the move.

Read article
Terry Bliss, Dave White Designated As TAPPI Fellows

An IPST alumnus and a veteran were named to the rolls of TAPPI Fellows at PaperCon at the annual luncheon April 27 in Nashville.

Read article

Calling All Alumni

All alumni of the Institute of Paper Chemistry, Institute of Paper Science and Technology and Georgia Tech’s Paper Science and Engineering program are invited to become members of the Paper Heritage Alumni Foundation.

Read article
Introducing the New and Existing Renewable Bioproducts Institute!

Georgia Tech and the Institute of Paper Science and Technology announced May 23 that they are broadening the scope and changing the name of IPST to the Renewable Bioproducts Institute. The move enables the Institute to broaden its appeal to any research investor seeking to unlock the potential of biomass materials for a range of products including and beyond paper.

Separately, the Institute of Paper Chemistry Foundation Board has conferred a gift of $43 million to Georgia Tech in support of graduate education in paper science and engineering and forest bioproducts. See related story in this newsletter.

The scope and name changes reflect the evolving nature of the industry’s opportunities and interests. The former IPST has pursued a strategy in recent years focusing on three strategic thrusts—operational excellence in processing biomaterials; new chemicals from biomaterials; and biorefining. The new name and scope are consistent with that strategy. The action was encouraged and endorsed by the Board of the Institute of Paper Chemistry Foundation and the Tenth-Year Review Team, following the successful audit.
Continued from last page

during the summer and fall of 2013. Both the Foundation Board and the review team believed the scope and name-change to be important in powering the growth of the 85-year-old institution.

“In the twenty-five years since we changed our scope and name from the Institute of Paper Chemistry to the Institute of Paper Science and Technology, the industry has come to realize the much more extensive opportunity inherent in biomass,” observed RBI executive director Norman Marsolan. “As a materials platform, there are few substances on Earth offering greater opportunities, or more fascinating fundamentals, than cellulose—and it is both sustainable and renewable.

“We will serve as a portal to private and public interests who want to be part of releasing that potential,” Marsolan continued, “taking advantage of the vast multidisciplinary capabilities available on the Georgia Tech campus and throughout the world.”

To read the press release, and to learn more about RBI, please see www.news.gatech.edu/features/renewable-bioproducts-institute or visit the RBI website at www.bioproducts.gatech.edu.

Georgia Tech’s Renewable Bioproducts Institute Receives $43.6 Million in Legacy Funding

Paper Chemistry Foundation Gift Supports Future of Forest Bioproducts Research and Education

The Institute of Paper Chemistry Foundation (IPCF) has conveyed a gift of $43.6 million to Georgia Institute of Technology. This major grant, one of the largest gifts in Georgia Tech’s history, affirms the Institute’s position as a leading driver of the future of the forest bioproducts industry.

“We are extremely grateful to the Institute of Paper Chemistry Foundation for entrusting us with this generous gift,” said Georgia Tech President G.P. “Bud” Peterson. “Through the Renewable Bioproducts Institute, we will maximize Georgia Tech’s and the State of Georgia’s strengths in sustainability and innovation to develop real-world applications as well as educate the next generation of leadership in the forest and bioproducts industry.”
The Institute of Paper Chemistry Foundation represents the legacy of the Institute of Paper Chemistry (IPC), founded in Appleton, Wisconsin in 1929, to provide scientific research and future leaders for the paper industry. IPC became the Institute of Paper Science and Technology (IPST) when it relocated to Atlanta in 1989. It subsequently merged with Georgia Tech in 2003. On May 23, 2014, Georgia Tech announced that the Institute would be renamed the Renewable Bioproducts Institute (RBI) to reflect its expanding engagement with a broader range of biomaterials processing industries. See related article in this newsletter.

“We believe the relaunching of the Institute as the Renewable Bioproducts Institute is a natural development in its evolution and an important advance in its progress,” said IPCF board chair George Lanier. “Georgia Tech is demonstrating its commitment to this industry, which is so important to Georgia and the nation. The industry’s emerging opportunities can be effectively developed there.”

The IPC Foundation Board’s action in transferring the $43 million endowment to the Georgia Tech Foundation for the benefit of RBI completes a process begun 10 years ago at the merger of IPST and Georgia Tech.

“We deeply appreciate the confidence IPCF has placed in us,” said RBI executive director Norman Marsolan, “and we will continue its legacy of growth in bioproducts research and industry leadership development. We are on the threshold of a new era of development of this renewable, sustainable natural resource, and we pledge our efforts to justify IPCF’s faith in us by contributing to the full realization of its potential.”

The Renewable Bioproducts Institute benefits from a significant endowment originating with the Institute of Paper Chemistry. That endowment has contributed to the support of more than 1,500 graduate alumni through the years and currently supports more than 50 paper science and engineering students who advance the research mission of IPST/RBI through their faculty-directed research. RBI will continue to build on that legacy by working closely with industrial partners to foster an innovative, competitive and profitable bioproducts industry, while the endowment will continue to support graduate studies in paper science and engineering.

For more information on RBI, please visit www.news.gatech.edu/features/renewable-bioproducts-institute.

Georgia Tech Announces Faculty Openings at RBI; Commences Global Search

In support of the Renewable Bioproducts Institute’s strategic thrusts, and to enrich its academic and technical contributions in aligned fields, Georgia Tech is announcing academic and research faculty openings in academic Schools and seeks qualified candidates for these positions. For full position descriptions and details about applying, please visit the RBI website www.bioproducts.gatech.edu.
Tenure Track Faculty Position

The Georgia Institute of Technology School of Chemistry and Biochemistry seeks to fill a tenure-track faculty position in the development of any aspect of chemistry or biochemistry related to feedstocks from renewable and sustainable sources. Research areas of interest include, and are not limited to, functional biomaterials, catalysis, energy harvesting and storage, efficient syntheses and processes, and plant bioengineering and synthetic biology. Exceptional candidates at all levels are encouraged to apply. The application deadline is September 15, 2014, with application review continuing until the position is filled.

Professor of the Practice

The School of Chemical & Biomolecular Engineering and the Renewable Bioproducts Institute of Georgia Tech announce that they will hire a Professor of the Practice to teach and research in a field affiliated with pulp and paper manufacturing. The candidate should have significant knowledge of pulp & paper-related technologies and have contributed to advances in the field of biorefining. The Professor of the Practice is a non-tenure track position designated for qualified academic, business, or government leaders. Qualifications and expectations for this position include a substantial base of experience and a national/international reputation for excellence. The incumbent will serve as liaison between industry or government and the Institute in identifying teaching and research opportunities. The candidate must hold a PhD in a relevant engineering or scientific field. Consideration of applications began on June 1, 2014.

The School of Chemical & Biomolecular Engineering is one of the largest chemical engineering programs in the US, with more than 200 graduate and 800 undergraduate students. The school is part of the Georgia Tech College of Engineering, which consistently ranks in the top 5 engineering colleges in the nation for both undergraduate and graduate programs. All of Georgia Tech’s undergraduate and graduate engineering programs are ranked in the top 10 by US News and World Report.

Paper Tricentennial Building Capital Upgrades Planned

To facilitate the accomplishment of the Renewable Bioproducts Institute’s new mission, Georgia Tech plans significant upgrades to the Paper Tricentennial Building. Space will be redesigned to leverage the strength of the cross-functional capabilities of the participating schools and scientists in residence.

Under the conceptual plan, additional lab space will be created by the conversion of nearly 7,000 square feet of existing offices on the fifth floor into new wet-lab space with chemical fume hoods. 2,400 square feet of existing lab space on the fourth floor will be upgraded. About 3,000 square feet of open floor lab on the third floor is well suited for pilot-scale equipment. Other upgrades are planned for common areas, auditorium, lobby, lounge, and cafeteria. Major HVAC upgrades will be performed for the building as a whole, bringing greater operating and cost efficiency. The capital projects and budgets are currently being developed. Completion of all the envisioned work would occur sometime in 2016 or 2017.
Georgia Tech President G. P. “Bud” Peterson conducted his annual Summer Tour of Georgia this month, traveling 500 miles in 26 counties, with 24 events in seven cities in four days. Meetings and tours were held in Augusta, Sandersville, Dublin, Hawkinsville, Warner Robins, Perry and Griffin, Georgia. In Hawkinsville, he visited Hollingsworth and Vose, manufacturers of paper materials for oil and air filters as well as specialty paper products. The one hundred year-old company has worked with what is now the Georgia Tech Renewable Bioproducts Institute and with business outreach professionals in Georgia Tech's Enterprise Innovation Institute for more than 20 years. This year, the week-long series of presentations and networking events throughout the state was an opportunity to highlight forest utilization and value-added products and the industry’s importance to Georgia’s economy, and Georgia Tech’s commitment to developing these resources. President Peterson publicized the recent $43.6 million gift from the Institute of Paper Chemistry Foundation to Georgia Tech throughout the trip. "This year the summer tour provided an opportunity to talk about the transformational grant and RBI's research and development capabilities to help industry meet changing needs and position the Institute as a leading force in the future of the forest bioproducts and paper industry," said Peterson.
Recognition

Professor Ragauskas Accepts Gunnar Nicholson Award; heads for Oak Ridge/University of Tennessee

Professor Art Ragauskas accepted the Gunnar Nicholson Gold Medal award—the highest honor that the Association can bestow upon an individual—at TAPPI’s Awards Dinner April 29 at PaperCon in Nashville. The award is given to an individual or individuals who have made preeminent scientific and engineering achievements of proven applied benefit to the world’s pulp, paper, board, and forest products industries and the other industries that TAPPI serves.

Ragauskas held the first Fulbright Chair in Alternative Energy and is a Fellow of the American Association for the Advancement of Science, International Academy of Wood Science and TAPPI. He is the recipient of the 2014 ACS Affordable Green Chemistry award. His multifaceted research program at Georgia Tech explored innovative sustainable bioresources to develop new and improved applications for renewable biopolymers for biofuels, biopower, and bio-based materials and chemicals.

As of June 1, Art headed to a new appointment at the University of Tennessee/Oak Ridge National Lab Governor’s Chair for Biorefining. He has held appointments at IPST and Georgia Tech for 25 years, and will continue to build on that research relationship in his new assignment. Art will hold an adjunct professor appointment with the Georgia Tech School of Chemistry & Biochemistry where he will continue to direct the research of several Paper Science and Engineering PhD candidates. We wish Art success in his new appointment, his continuing relationship with RBI-GA Tech, and his research in the forest bioproducts field.

Research

Renewable Bioproducts Institute (IPST) Announces 2015 Research Fellowships

RBI executive director Norman Marsolan has announced the award of twelve new fellowships for FY 15, which begins July 1. They were selected from among 30 applications. The awards will fund work from
17 faculty representing three engineering schools (Chemical and Biomolecular Engineering, Mechanical Engineering, Materials Science and Engineering) through up to four years of graduate student fellowship support. Four of the faculty are new entrants to the PSE program, reflecting continued progress in broadening engagement and visibility on campus. Half of the fellowships are in operational excellence, of which three are in cost reduction and three in product development; three are in biorefining; and three are in new materials, all nanocellulose.

<table>
<thead>
<tr>
<th>Proposal Title (short version of title)</th>
<th>Author Name of PI(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect of Strain on Repassivation and Corrosion Behavior of Duplex Stainless Steels in Pulp and Paper Mill Environments</td>
<td>Singh, Preet</td>
</tr>
<tr>
<td>Strain Field Mining: The Key to Engineering the Strength and Fracture Toughness of Paper and Packaging Products</td>
<td>Muhlstein, Christopher</td>
</tr>
<tr>
<td>High Performance Barrier Coating Packages from Well Designed InkJet Printing Using Cellulose Nanocrystal-Polymer Composite</td>
<td>Qi, Jerry; Deng, Yulin</td>
</tr>
<tr>
<td>Protein-assisted functional active packaging for safety and security: the intersection of cellulosics and fungal hydrophobins with semiconducting polymers</td>
<td>Russo, Paul; Reichmanis, Elsa</td>
</tr>
<tr>
<td>Process systems engineering of novel mild chemical pretreatment options of lignocellulosics</td>
<td>Bommarius, Andreas; Realff, Matthew</td>
</tr>
<tr>
<td>Nanocellulose based Biomimetic Chemocatalysts for Conversion of Furan Compounds to Fuels</td>
<td>Jones, Chris</td>
</tr>
<tr>
<td>Mechanocatalytic Depolymerization of Lignin over Kaolin-Based Catalysts</td>
<td>Sievers, Carsten</td>
</tr>
<tr>
<td>Bio-Inspired, Ultra-Strong Biopolymer-Based Nanocomposites</td>
<td>Jacob, Karl; Garmestani, Hamid</td>
</tr>
<tr>
<td>High Performance Cellulose Fibers Based on Cellulose Nano Crystals</td>
<td>Kumar, Satish; Moon, Robert</td>
</tr>
<tr>
<td>Rapid, Reliable Optical Analysis of Cellulose Nanocrystal Morphology/Size</td>
<td>Sandhage, Ken; Moon, Robert</td>
</tr>
<tr>
<td>Fiber orientation in multiphase forming technology</td>
<td>Aidun, Cyrus</td>
</tr>
<tr>
<td>Advanced froth flotation for the separation of water-soluble and mildly hydrophobic contaminants from aqueous pulps and slurries</td>
<td>Behrens, Sven; Meredith, Carson</td>
</tr>
</tbody>
</table>
Eight Sponsored Research Opportunities Offered

The Renewable Bioproducts Institute has announced eight opportunities for sponsored research for FY 15, beginning July 1. The projects are being offered exclusively to RBI members for individual or consortium-based sponsorship.

“We believe the ability to sponsor these projects offers our member companies a strategic advantage and high member value—an opportunity to leverage the IPST Endowment to further your company’s research interests,” wrote Norman Marsolan in an e-mail to member contacts. “The projects were selected for sponsorship funding based in large part on your expressions of interest at various opportunities during the year.”

Two consortium projects proposed for FY 14 are under way; they are “Robust Membranes for Concentration of Black Liquor” (Sankar Nair, PhD, PI) and “Corrosion Control in Paper Machines Using Reduced Fresh Water,” (Preet Singh, PhD, PI). Member companies Domtar, International Paper, KapStone, MWV, and Verso are funding these projects.

For further information on any of these projects, please contact Dr. Marsolan at Norman@gatech.edu.

RBI Kickoff Symposium on Lignocellulosics Planned; Corrosion Symposium Also Scheduled

The Renewable Bioproducts Institute will inaugurate its cross-industry outreach program with a symposium on lignocellulosics on October 1-2 in Atlanta. Professors Carsten Sievers and Matt Realff will co-chair the event. “A cross-industry event on lignocellulosics seems the perfect way to launch the Renewable Bioproducts Institute,” commented Prof. Carsten Sievers. “We plan to build on the key points raised at the interdisciplinary colloquium Dr. Preet Singh led here last December, and bring in a cross-section of industries and Georgia Tech capabilities.” The symposium will showcase Georgia Tech as one of the leading engineering institutions in the U.S. and display its commitment to research on the production of materials and chemicals from renewable resources.
Corrosion Symposium

Dr. Preet Singh, who led the campus colloquium on lignocellulosics last December, will also host an industry symposium this fall, on corrosion. The event, titled “International Symposium on Corrosion in the Pulp and Paper Industry,” is scheduled for November 5-7. Patterned after the Black Liquor Recovery Boiler Advisory Committee (BLRBAC) and the International Chemical Recovery Committee (ICRC) meetings, the symposium will bring together experts in chemical recovery, bleaching, and paper machines to discuss emerging problems and solutions involving today’s materials and tomorrows technologies. For further information, contact Dr. Singh at preet.singh@mse.gatech.edu.

RBI/Georgia Tech Attend Cellulosic Nanomaterials Workshop in Washington

Mr. Robert Knotts, Director of Federal Relations at Georgia Tech participated, and Professor Bernard Keppelin exhibited a poster of his work on solar panels from renewable biomaterials. The workshop featured panel presentations and break-out discussions on potential applications, market needs, barriers to commercialization, and research opportunities. The proceedings are expected out in about a month.

Education

On-Line Professional Master’s Proposal Moves Forward

The proposed professional master’s degree in manufacturing leadership (PMML) has advanced to the Georgia Board of Regents. Initial approval was granted to authorize coursework development and preparation of a full proposal, due to the Board in the fall. Georgia Tech is targeting entry of the first cohort of students in the fall of 2015, pending necessary concurrences and approvals.

The four-quadrant program will feature three core components of manufacturing excellence, business and finance, and leadership. The fourth quadrant will be technical development in a particular industry.
Master's

Continued from last page

Forest bioproducts and chemical processing are the two initial specializations available, with others planned in the future. Associate professors Nagi Gebraeel, ISyE, and Meisha Shofner, MSE, are engaged in developing the curriculum and materials for the degree program this summer.

RBI is interested in identifying companies wishing to participate in curriculum development and program design. For further information, please contact Norman Marsolan at Norman@gatech.edu.

Students

Senior Design Project Seeks To Redesign the Paper Bag

On April 24, a design team of five Materials Science and Engineering students in their senior year presented the results of a project to redesign the paper bag at the campus-wide Georgia Tech Capstone Design Expo.

As the project abstract says, paper grocery bags, which were largely supplanted by commodity polyethylene bags in the late 20th century, are once again rising in popularity due to increasingly strict regulation, as well as rising interest in sustainability and environmentally benign products. Accordingly, in their study, students examined and tested an existing Trader Joe's paper bag design as a foundation for the development of new commodity paper bag concepts, with the intent of producing a more durable bag. The initial hypothesis was that the point of attachment of handle to bag was the failure point; however, students found that the strength of the handle itself was the issue.

Students recommend further testing to determine the true strength of the conceptual attachment methods, as well as width improvements to the existing control bag, in order to achieve a more ideal product.

Back to top
Carl Landegger, a former chair of the IPST board of trustees, provided a donation to fund the project. Norman Marsolan sponsored the project, and Dr. Meisha Shofner in the School of Materials Science and Engineering led the five-member team. Other resources assisting the students included Dr. Roman Popil of RBI-Georgia Tech, Debbie Hammack of KapStone Paper, and Dr. Robert Moon of USDA-Forest Service.

**Georgia Tech Confers Degrees on Paper Science and Engineering Students**

PSE students Parisa Pooyan and Brian Yun have earned PhD degrees in mechanical engineering, and graduated in May. Congratulations, Parisa and Brian!

**Faculty**

**Professor Robert Moon Receives Adjunct Appointment from Materials Science and Engineering**

Professor Robert Moon received an adjunct appointment from the School of Materials Science and Engineering on April 29. Dr Moon, an employee of the US Forest Service, is on campus on assignment to further advance technology development in cellulosic nanomaterials. His presence reflects the importance that the USFS places on the potential of nanocellulose technology to further the USFS’ goal to fully utilize its renewable resources. The appointment enables him to work as a principal investigator in Materials Science and Engineering, and participate in the program as a faculty member.

In addition to his work with RBI, Dr. Moon will also work closely with other centers and institutes at Georgia Tech and with other universities and institutions within the region. His primary focus is on cellulose nanomaterials, and Dr. Moon also explores the nanotechnology aspects of other tree components including lignin and hemicellulose. 

*See profile of Dr Moon in the December 2013 newsletter.*
Faculty Members Address Technical Conferences (from ChBE Internal News)

Professor Dennis Hess gave an invited talk on June 17 titled “Modification of Paper/Cellulose Surfaces to Control Fluid Wetting and Adhesion” at the Ninth International Symposium on Contact Angle, Wettability and Adhesion at Lehigh University in Bethlehem, PA.

Professor Carson Meredith gave an invited talk titled “Discovery and Engineering of New Adhesive Designs Based on Lessons from Nature” at the Dresden University of Technology (Technische Universität Dresden), Germany, on June 20.

Professor Cyrus Aidun Travels To Sweden In Support of Nicholson Exchange Program

Professor Cyrus Aidun, long-term faculty member of RBI and its predecessor institutes, is in Sweden this summer promoting the Gunnar Nicholson Exchange Program. The RBI endowment makes the exchange possible, through a generous gift from Dr. Gunnar W.E. Nicholson to the Institute in 1984. This one-of-a-kind fellowship provides funds for a Swedish graduate engineer to study at RBI (IPST) for a period of three years or the time required to earn the PhD degree, whichever is shorter. Funds are also available to support a faculty exchange for one year. Dr. Aidun spent two summers in Royal Institute of Technology (KTH) in Sweden as part of the program. PSE student Tyrone Wells is just finishing up a one-year exchange at Chalmers University of Technology.
In April, RBI executive director Norman Marsolan attended TAPPI PaperCon in Nashville. The events included the awards dinner at which Professor Art Ragauskas received the Gunnar Nicholson Gold Medal Award. See related story, this issue. Former IPC employee Doug Dugal was honored with the Henry Joachim Distinguished Service Award at the event.

The Renewable Bioproducts Institute, in its former incarnation as IPST, hosted a table at PaperCon’s first annual Alumni Soirée. About a dozen paper schools participated, providing displays featuring their schools and inviting alumni to gather for laughs and refreshments.

Agenda 2020 Meeting

Norman also attended the quarterly meeting of Agenda 2020 in Raleigh June 4, where team updates on development of priority research roadmaps were featured. PhD student Chad Hume, sponsored by ME Professor David Rosen, attended Agenda 2020’s Drier Web team workshop June 3, preceding the quarterly meeting. RBI recently hosted the Black Liquor Concentration team as well. RBI considers the work of the teams to provide an avenue of insight into industry research priorities, and therefore as one important input to its research plans.
Membership

The Renewable Bioproducts Institute welcomes its newest member, American Process, Inc.

American Process is a global leader in the development of technologies for the commercial production of sugar and ethanol from non-food based biomass such as woodchips. API strives to become the leading provider of biomass-derived sugars to a wide range of biofuel and biochemical producers.

From the Museum

Past and Future Events

Atlanta Science Festival
The Robert C. Williams Museum of Papermaking participated in the Atlanta Science Festival Expo on Saturday, March 29. This inaugural event was sponsored by Georgia Tech and Emory University, and featured 150 organizations leading hands-on science activities. During the course of the day, hundreds of sheets of paper were made, and over 2,500 people visited the museum’s activity station. Here, Gavin (age 8) and Liam (age 5) Englehardt, sons of GT Research Communications Director Kirk Englehardt, proudly display their handsheets.

Conference in Italy

On July 1, Museum staff Juan Chevere and Virginia Howell will depart for the International Association of Hand Papermakers and Paper Artists (IAPMA) conference in Fabriano, Italy. Fabriano is the location of one of the earliest paper mills in Europe. The Robert C. Williams Museum of Papermaking and the Museo della Carta e della Filigrana have a long history together, since both feature the history of paper.

While at the conference, Juan and Virginia will participate in numerous workshops and presentations on various aspects of hand papermaking. Workshop leaders include Helen Hiebert, a well-known paper artist and author, and Tom Bannister, the editor of the Hand Papermaking Journal. The conference is a great opportunity to become more familiar with papermakers and current trends in the craft.
Alumni

**Terry Bliss, Dave White Designated As TAPPI Fellows**

An IPST alumnus and a veteran were named to the rolls of TAPPI Fellows at PaperCon at the annual luncheon April 27 in Nashville. Terry Bliss, PhD from the Institute in 1999, is Research Fellow at Ashland Water Technologies. Dave White, PhD, who currently serves as Director, Research, Development, and Deployment at the Herty Advanced Materials Center, held a senior research position at the Institute of Paper Science and Technology. Congratulations to both on this well-deserved recognition.

**Alumni Welcome to Keep in Touch**

All alumni of the Institute of Paper Chemistry, Institute of Paper Science and Technology and Georgia Tech’s Paper Science and Engineering program are invited to become members of the Paper Heritage Alumni Foundation. The alumni foundation’s purpose is to serve alumni by engaging former students in active and effective partnerships with the IPST community and the industry. Governed by alumni, for alumni, the Foundation promotes mutually beneficial interaction between alumni and the current student body and offers the opportunity to build Institute friendships that will last a lifetime.

For further information, go to [www.bioproducts.gatech.edu/alumni/](http://www.bioproducts.gatech.edu/alumni/), or email [Lavon.Harper@ipst.gatech.edu](mailto:Lavon.Harper@ipst.gatech.edu).