



November 13–19, 2015 • Houston, Texas

# 2015 IMECE

## ONE GREAT LEARNING EXPERIENCE.

### INTERNATIONAL MECHANICAL ENGINEERING CONGRESS & EXPOSITION



#### APRIL 2015

ASME's International Mechanical Engineering Congress and Exposition (IMECE) is the largest interdisciplinary mechanical engineering conference in the world. Among the 4,000 attendees from 75+ countries are mechanical engineers in advanced manufacturing, aerospace, advanced energy, fluids engineering, heat transfer, design engineering, materials and energy recovery, applied mechanics, power, rail transportation, nanotechnology, bioengineering, internal combustion engines, environmental engineering, and more.



## INNOVATION @ IMECE: Things to Look for in 2015

### Biomedical and Bioengineering Technology Track Names Two Plenary Lecturers

#### Mechanobiology of Treatments in the Premature Lung: Implications for Pediatric Asthma

Whooping disorders, including asthma, contribute to respiratory morbidity in former preterm infants. Clinical interventions, such as an excess of oxygen in the system (hyperoxia) and positive pressure mechanical ventilation, are thought to contribute to morbidity due to detrimental stretching and damage of fragile lung alveoli. [Dr. Y. S. Prakash, Mayo College of Medicine](#), will present his emerging research on how the mechanobiology of the developing airway

Couldn't Make it to Montreal?

[ASME 2015 IMECE Proceedings](#)

[Now Available](#)

#### DATES TO REMEMBER

##### May 2015

Registration Opens  
ASME Discounted Housing Rates Available

##### June 22, 2015

Poster & Photo Submission  
Deadline

##### August 10, 2015

Author Pre-Registration  
Early Bird Registration Deadline

#### You May Be Missing Out

Sign up to gain free access to our [different technical groups](#) online or to receive [IMECE-specific updates](#).

serves as a key first step towards targeting adverse effects of these interventions in the context of neonatal wheezing and pediatric asthma.

### **Metallic Fibers Show Promise for Ortho Implants**

New materials made by flash-sintering tiny metallic fibers underlie a revolution in structural materials and design. [Changqing Chen of Tsinghua University](#) will present his research on how these metallic papers are emerging as flexible platforms for orthopedic implants, with the possibility of nano- and micro-textured surfaces that are particularly conducive to cell growth.

## **Poster and Photo Submission Deadline Is June 22**

There's still time to become part of this interdisciplinary conference: [submit your abstract for your poster or photo submission](#) by June 22.

Present your work in one of the following sessions:

- Heat Transfer Photo Gallery
- DeWitt Poster Session for Heat Transfer
- Heat Transfer Graduate Poster Session
- Mechanics of Solids, Structures and Fluids
- Virtual Podium, including the Society-Wide Micro and Nanotechnology Forum
- ASME International Undergraduate Research and Design Expo
- NSF Student Competition

*\*Submissions are for presentation only  
(no publication in the conference proceedings).*

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## **In the World of Interdisciplinary Mechanical Engineering**

### **Listen Up: Bioengineering + 3D Printing**

[Read about](#) how Princeton scientists used 3D printing to create a "bionic ear."

### **Innovation Needed: Population Growth vs. Water Supply**

[Find out](#) what technological advances are needed to avoid future water shortages.

### **What's Famous, Yellow, and Designed to Fight Ebola?**

[Learn how](#) Johns Hopkins is bringing together collaborative teams to address



real world problems.

## Innovation at IMECE: Highlights from 2014



[Hear what it takes to innovate and develop new technologies](#) in the field of aerospace today from Sikorsky Innovations' Chris Van Buiten, Vice President, Aerospace Engineering.



[Rolls Royce Canada is leading the effort](#) to develop more efficient turbines that can run on a variety of fuel sources.



[Gain ideas from Windhorse International's Dr. Paul Polak](#) about how we can develop business solutions to poverty in the developing world.

**VIEW** FURTHER DETAILS ON PROGRAM TOPICS  
AND CONFERENCE INFORMATION.

