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**Bioscience Education Canada
Names Meritorious Service
Award**

May 18, 2011 (Toronto, Ont.) --
Bioscience Education Canada (BEC) has
named the vaccine specialist, Dr. Luis
Barreto, as the first winner of its BEC
Meritorious Service Award.

Dr. Barreto was presented with the
award at the recent National Awards
ceremony in Ottawa of the Sanofi
Aventis BioTalent Challenge, a national
science competition managed by BEC.
The program allows students to develop
advanced research projects with the help
of a mentor from the real world of
scientific research. This year's national
winner was Marshall Zhang, a 16 year
old from Toronto, whose project
identified a new combination of drugs
that could potentially lead to a more
effective treatment for cystic fibrosis.

Dr. Barreto recently retired as Vice
President of Immunization and Science
Policy at vaccine manufacturer, Sanofi
Pasteur. He is an internationally-known
medical doctor, scientist and business
executive who has contributed
significantly to the development of life-
saving vaccines around the world. Dr.
Barreto has worked to support the Sanofi
Aventis BioTalent Challenge since its
beginning in 1994. For the past six years
he has been Chair of the program's
national judging panel.

BEC Chair Jeff Graham presented the
award to Dr. Barreto on behalf of the

thousands of students and many partners
who have benefited from BEC's
educational programs. Mr. Graham said
that the award was "a most deserving
honour and we hope that Luis will
continue to be involved with our
organization for many years to come".



*Presented to Dr. Luis Barreto by Mr.
Jeffrey Graham, Chair of Bioscience
Education Canada and Partner, Borden
Ladner Gervais LLP*

The Sanofi Aventis BioTalent Challenge
is supported by Sanofi Pasteur, Sanofi
Aventis, the National Research Council,
Genome Canada, the Canadian Institutes
for Health Research and nearly 100 other
organizations in regions across Canada
including many of the nation's leading
universities.

BEC is a non-profit Canadian science
education organization which supports
the expansion of Canada's bio-economy
by educating students, teachers and the
public about the economic and social
benefits of using biotechnology to create

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new drugs, foods, fuels and solutions to environmental problems. In addition to the Sanofi Aventis BioTalent Challenge, BEC offers a number of specialized educational programs in the life sciences across Canada.

The BEC Patrons Council includes the following distinguished Canadian scientists: Dr. Alan Bernstein, Dr. William Cochrane, Dr. John Dirks, Dr. John Evans and Dr. Peter Hackett.

Winners of the 2011 National Sanofi Aventis BioTalent Challenge

The fourteen regional competitions for the 2011 SABC were held during April. The increased number of projects in most regions is testimony to the value of this program in engaging youth in culture of scientific discovery.

The National SABC was held at the NRC “Temple of Science” in Ottawa on May 9th and 10th. The 14 regional winning projects were presented to a panel of some of Canada’s leading scientists who were challenged to determine the top 5 winners along with the project that was deemed to have the best potential for commercialization.

The **1st place award** went to, 16 year old, **Marshall Zhang** of Bayview Secondary School in Richmond Hill, Ontario. Marshall’s project, **“Determining a potential basis for mechanisms of action of small molecules in the rescue of Δ F508-CFTR”** has generated much media

attention because it points to a promising treatment for Cystic Fibrosis.



Marshall Zhang of Bayview Secondary School

The **2nd place award** and the **award for Best Commercialization Potential** went to **Jonathan Khouzam, Simon Leclerc, Francis Marcogliese** from Collège Jean-de-Brébeuf in Montreal. These students developed a sorbet that is free of animal products, an innovation that has great market potential.

Marshall Zhang and **Jonathan Khousam** will present their research at the **Sanofi Aventis International BioGENEius Challenge** in Washington on June 27, 2012.

Shannon Watson, from Canterbury High School in Ottawa, took the **3rd place award** for her work which demonstrated the efficiency of microbial communities within *Zambian Mabisi* (a milk-based fermented product) to have clear antimicrobial effects on *Pseudomonas fluorescens* and *P. aeruginosa*. The latter species is the main bacterial pathogen affecting Cystic Fibrosis patients. Shannon’s research provides insight into the plausibility of natural products containing bacteriocins as a medicinal tool against persistent infection by multi-resistant strains.

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The 4th place award went to **Yasamin Mahjoub** from Winston Churchill High School in Calgary. Yasamin's research showed that the pregnancy-related hormones prolactin, estrogen and progesterone offered some protection against iron neurotoxicity. Accumulation of iron is associated with several disorders including Multiple Sclerosis.

Sam Cheng, of Fort Richmond Collegiate, Winnipeg, Manitoba won the 5th place award with his project, "Novel approaches of inducing death in leukemic B-cells using synthetic and biological agents".

Special issue of the Canadian Young Scientist Journal devoted to the Sanofi Aventis BioTalent Challenge

Special support by the Canadian Institutes for Health Research has allowed us to provide an opportunity for some SABC competitors from 2010, publish their work. Publication is the final piece in the real-life research experience that is offered by the Sanofi Aventis BioTalent Challenge. A copy of this special issue has been sent to each of 3,200 Canadian secondary schools. You can also see the electronic version on the Bioscience Education Canada website www.bioscienceeducation.ca.

Educational Resources

Thanks to the generosity of our sponsors and partners, BEC is pleased to make available to the teaching community and general public, recordings of lectures from the NBEC conferences, as well as several of our other lecture series, events and activities at no cost. The history of science is re-written every day and it is our goal to help educators to stay ahead of their students and their textbooks.

The 5th National Bioscience Educators Conference

NBEC 2011 was held on March 8th and 9th at Centennial College

BEC would like to thank our host and partner Centennial College for helping to organize this event. Special thanks goes to the conference co-chair, Dr. Paula Demacio and to Ms. Leslie Smith both of Centennial College.

Presentations and other resources from this conference are being made available on the Associates page of the BEC website www.bioscienceeducation.ca.

The conference would not have taken place without the generous support of our sponsors;

- **Council for Biotechnology Information**
- **Ontario Genomics Institute**
- **GlaxoSmithKline**
- **Borden Ladner Gervais LLP**
- **Gowlings**

**Merck “Exploring Minds”
Lectures and Workshops**

This annual series was held at Ryerson University in Toronto on April 19-20, 2011. It was attended by more than 900 students. The following is a list of some of the program offerings. For the complete list and access to videos, go to www.bioscienceeducation.ca. The Merck Lecture videos can also be seen at <https://ryecast.ryerson.ca/38/page/Publiched/200.aspx>. Password ‘Apr1920’

"Mighty microbes: Turning trash into cash" - Dr. Emma Master, University of Toronto

"Who are poo? How CSI technology is used to reconstruct microbiological communities in solid waste from treatment plants"- Dr Kimberley Gilbride, Ryerson University

"The human body: Solving the 100,000,000,000,000 cell puzzle"
- Dr Roberto Botelho, Department of Chemistry and Biology, Ryerson University

"Superbugs: A return to the antibiotic dark ages?"
- Ms. Patricia Taylor, McMaster University

"The Future of Medicine – your health and your genome"- Dr. Alison Symington, Ontario Genomics Institute

"Life is a Hammerfest: How to extract the most out of 24 h." - Dr. Mark Tarnopolsky, McMaster University

"Birth Weight Measurement in Midwifery and Mobile Health Care Delivery"- Dr. James Smith, and Mr. Jamil Jivraj, Ryerson University.

Hands-on Green Mining Experience

Twelve students from Newfoundland and Labrador, Sudbury and northern Manitoba will be hosted for a week at McMaster University for the 2012 version of the Green Mining research experience. The workshops are related to the bioremediation of wastewater from the mining industry. This scientific research camp is funded through the RBC Water and Health Initiative with in-kind support from McMaster and BEC.