

SIROCCO

Silencing RNAs: organizers and coordinators of complexity in eukaryotic organisms

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David Baulcombe is awarded the Benjamin Franklin Medal in Life Science for 2008

The medal has been presented by the Franklin Institute to Victor Ambros, Gary Ruvkun and David Baulcombe for their discovery of small RNAs that turn off genes. The Franklin Institute has honoured the greatest men and women of science, engineering and technology since 1824.

Citation: The 2008 Benjamin Franklin Medal in Life Science is presented to Victor Ambros, Gary Ruvkun and David Baulcombe for their discovery of small RNAs that turn off genes. Their pioneering work initiated a paradigm shift in our perception of the ways genes are regulated, and this insight is making possible major new genetic tools for basic research, and for improving agriculture and human health.

A symposium honouring the laureates will be held at the University of Delaware in Newark DE USA on Wednesday 16th April 2008



BAULCOMBE LAB MOVES TO CAMBRIDGE

After a long transition period SIROCCO Coordinator David Baulcombe and his lab have transferred to the Plant Sciences Department at the University of Cambridge where David has taken up his new position as Professor of Botany



<http://www.plantsci.cam.ac.uk/research/davidbaulcombe.html>

The department houses the Herbarium—a collection of over 1 million pressed, mounted, and named plant specimens arranged in systematic order. The Herbarium, begun in 1761, is famous for its historic collections such as the plant specimens collected by Charles Darwin on the voyage of the Beagle.



RESEARCH SPOTLIGHT



Partner 4 Witek Filipowicz and his co-authors have shown that mouse ES cells lacking Dicer (Dicer1) have a methylation defect which correlates with downregulation of de novo DNA methyltransferases (Dnmts). The defective DNA methylation can be rescued by ectopic expression of de novo Dnmts or by transfection of the miR-290 cluster miRNAs, indicating that de novo DNA methylation in ES cells is controlled by miRNAs.

[Sinkkonen L, Hugenschmidt T, Berninger P, Gaidatzis D, Mohn F, Artus-Revel CG, Zavolan M, Svoboda P, Filipowicz W.](#)

MicroRNAs control de novo DNA methylation through regulation of transcriptional repressors in mouse embryonic stem cells.

Nat Struct Mol Biol. 2008 Mar;15(3):259-67.
Epub 2008 Mar 2.

Partner 13 Jørgen Kjems his colleagues have demonstrated that reducible copolypeptides (rCPPs) can be used as carriers for the non-toxic cellular delivery of siRNA and pri-miRNA. The nuclear targeting of rCPPs can be utilized for delivery of siRNAs and pri-miRNAs to the nuclear compartment for transcriptional gene silencing or endogenous processing into mature miRNA, respectively, which could potentially lead to improved therapeutic approaches.

[Rahbek UL, Howard KA, Oupicky D, Manickam DS, Dong M, Nielsen AF, Hansen TB, Besenbacher F, Kjems J.](#)

Intracellular siRNA and precursor miRNA trafficking using bioresponsive copolypeptides.

J Gene Med. 2008 Jan;10(1):81-93.

SIROCCO/RIGHT Young Investigators Symposium

16-19 April 2008 Jesus College Cambridge UK

Keynote speakers:

Judy Lieberman, Harvard Medical School Boston MA
John Rossi, Beckman Research Institute of the City of Hope, Duarte CA

Register online www.sirocco-project.eu

The symposium is not all hard work— a punting excursion has been arranged for the delegates.



SIROCCO 2008

The dates for the next SIROCCO Annual Meeting are 10-12th December 2008.

A meeting venue is still being considered.

BLOCK 10-12 DECEMBER IN YOUR CALENDAR!

For **SIROCCO** information please contact Aileen Hogan
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