

## PREFACE

These are the Proceedings of the 15<sup>th</sup> Symposium on Bioluminescence and Chemiluminescence held at the Shanghai Galaxy Hotel on 13-17 May, 2008. This series of symposia started in Brussels in 1978, and a list of the other Proceedings volumes appears at the end of this Preface. As in previous symposia, participants came from far and wide and in all 19 countries were represented.

The Organizing Secretariat was fortunate to have the continued association with the International Society for Bioluminescence & Chemiluminescence. The organizers are thankful for the kind support of the society. We also thank John Wiley & Sons for publishing the regular abstracts in the journal *Luminescence* Vol. 23(2) 2008.

### Editorial Note

This volume was compiled without peer review from camera-ready manuscripts of lectures and posters presented at the Symposium. The Editors have, in the interest of rapid publication, made only minor stylistic changes. They take no responsibility for scientific or priority matters.

**The Editors:** Xun Shen, Xiao-Lin Yang, Xin-Rong Zhang, Zong Jie Cui, Larry J Kricka, Philip E Stanley.

## THE MARLENE DELUCA PRIZE

The Marlene DeLuca prizes were again generously given by Dr Fritz Berthold, together with Berthold Technologies. Dr. Berthold has provided these prizes at each symposium since the 1988 Symposium in Florence. The prize can be awarded to symposium participants under the age of 35 on the day before the starting date of the symposium. The prize is given in memory of Dr. Marlene DeLuca who made major contributions to the science of bioluminescence (see Stanley PE. Dedication to Marlene DeLuca: *Journal of Bioluminescence and Chemiluminescence* 1989;4:7-11 (includes list of her papers). Similarly to previous years' selections, the President of the International Society, Professor Xun Shen (Institute of Biophysics, Chinese Academy of Sciences, China), assembled a selection committee from the society to choose the four winners based on their presentations. The 2008 prize winners were:

**Zhijuan Cao**, School of Pharmacy, Fudan University Shanghai.

G-rich sequence-functionalized polystyrene microsphere-based instantaneous derivatization for the chemiluminescence-amplified detection of DNA.

**Julien Claes**, Laboratory of Marine Biology, Catholic University of Louvain.  
Bioluminescence of sharks, a case study: *Etmopterus spinax*.

**Elena Eremeeva**, Photobiology Laboratory, Institute of Biophysics Krasnoyarsk and Laboratory of Biochemistry, Wageningen University.

The kinetics of coelenterazine binding with apo-obelin and apo-aequorin.

**Michael Koksharov**, Department of Chemistry, Lomonosov State University Moscow.

pH-tolerant mutants of *Luciola mingrelica* luciferase created by random mutagenesis.

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**MANUSCRIPT EDITORS:** Larry J Kricka and P E Stanley

## ACKNOWLEDGEMENTS

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**HOSTED BY:** The Commission for Photobiology, Biophysical Society of China.

**CO-HOSTED BY:** The Commission for Analytical Chemistry, The Chinese Chemical Society, The Commission for Luminescence, The Chinese Physical Society.

**LOCAL SPONSORS:** China Association for Science and Technology, National Natural Science Foundation of China. The Institute of Biophysics, The Chinese Academy of Sciences.

**SPONSORS:** John Wiley & Sons, Ltd, China Medical Technologies, Promega Corporation.

**EXHIBITORS:** Chemclin Biotech Co, Ltd. (Beijing); Hamamatsu Photonics K.K. (Beijing); Berthold Technologies GmbH & Co. KG; Berthold Detection Systems GmbH; Promega Corporation; Perkin Elmer Instruments (Shanghai) Co., Ltd.; Nature Gene Life Sciences Company Ltd. (Hong Kong); Longmed Bio-Tech. Ltd. (Beijing); Thermo Fisher Scientific (Shanghai) Co., Ltd.; Olympus (Beijing) Sales and Service Co., Ltd.; China Medical Technologies; Nikyang Enterprise Ltd (Hong Kong).

## NEXT SYMPOSIUM

The next Symposium will be held in Lyon, France in 2010. Details of the 16th BL&CL Symposium will be posted on, <http://www.isbc.unibo.it>.

### PROCEEDINGS OF PREVIOUS SYMPOSIA

#### 14<sup>th</sup> 2006 San Diego, CA, USA

Bioluminescence & Chemiluminescence: Chemistry, Biology and Applications. Editors: Szalay AA, Hill PJ, Kricka LJ, Stanley PE. Singapore: World Scientific 2007. pp. 283. ISBN 981-270-816-2.

#### 13<sup>th</sup> 2004 Yokohama, Japan

Bioluminescence & Chemiluminescence: Progress and Perspectives. Editors: Tsuji A, Matsumoto M, Maeda M, Kricka LJ, Stanley PE. Singapore: World Scientific 2004. pp. 520. ISBN 981-238-156-2.

#### 12<sup>th</sup> 2002 Cambridge, UK

Bioluminescence & Chemiluminescence: Progress & Current Applications. Editors: Stanley PE, Kricka LJ. Singapore: World Scientific 2002. pp. 520. ISBN 981-238-156-2.

#### 11<sup>th</sup> 2000 Monterey, CA, USA

Proceedings of the 11<sup>th</sup> International Symposium on Bioluminescence & Chemiluminescence. Editors: Case JF, Herring PJ, Robison BH, Haddock SHD, Kricka LJ, Stanley PE. Singapore: World Scientific 2001. pp. 517. ISBN 981-02-4679-X.

**10<sup>th</sup> 1998 Bologna, Italy**

Bioluminescence and Chemiluminescence: Perspectives for the 21<sup>st</sup> Century. Editors: Roda A, Pazzagli M, Kricka LJ, Stanley PE. Chichester: Wiley 1999. pp. 628. ISBN: 0-471-98733-6.

**9<sup>th</sup> 1996 Woods Hole, MA, USA**

Bioluminescence and Chemiluminescence: Molecular Reporting with Photons. Editors: Hastings JW, Kricka LJ, Stanley PE. Chichester: Wiley 1997. pp. 568. ISBN: 0-471-97502-8.

**8<sup>th</sup> 1994 Cambridge, UK**

Bioluminescence and Chemiluminescence: Fundamentals and Applied Aspects. Editors: Campbell AK, Kricka LJ, Stanley PE. Chichester: Wiley 1994. pp. 672. ISBN: 0-471-95548-5.

**7<sup>th</sup> 1993 Banff, Canada**

Bioluminescence and Chemiluminescence: Status Report. Editors: Szalay AA, Kricka LJ, Stanley PE. Chichester: Wiley. 1993, pp. 548. ISBN: 0-471-94164-6.

**6<sup>th</sup> 1990 Cambridge, UK**

Bioluminescence and Chemiluminescence: Current Status. Editors: Stanley PE, Kricka LJ. Chichester: Wiley 1991. pp. 570. ISBN: 0-471-92993-X.

**5<sup>th</sup> 1988 Florence, Italy**

Bioluminescence and Chemiluminescence: Studies and Applications in Biology and Medicine. Editors: Pazzagli M, Cadenas E, Kricka LJ, Roda A, Stanley PE. Chichester: Wiley 1989. pp. 646. (published as volume 4, issue 1 of the *Journal of Bioluminescence and Chemiluminescence*, 1989). ISBN: 0-471-92264-1.

**4<sup>th</sup> 1986 Freiburg, Germany**

Bioluminescence and Chemiluminescence: New Perspectives. Editors: Schölmerich J, Andreesen R, Kapp A, Ernst M, Woods WG. Chichester: Wiley 1987. pp. 600. ISBN: 0-471-91470-3.

**3<sup>rd</sup> 1984 Birmingham, UK**

Analytical Applications of Bioluminescence and Chemiluminescence. Editors: Kricka LJ, Stanley PE, Thorpe GHG, Whitehead TP. London: Academic Press 1984. pp. 602. ISBN: 0-12-426290-2.

**2<sup>nd</sup> 1980 San Diego, CA, USA**

Bioluminescence and Chemiluminescence: Basic Chemistry and Analytical Applications. Editors: DeLuca MA, McElroy WD. New York: Academic Press 1981. pp.782. ISBN: 0-12-208820-4.

**1<sup>st</sup> 1978 Brussels, Belgium**

International Symposium on Analytical Applications of Bioluminescence and Chemiluminescence. Proceedings 1978. Editors: Schram E, Stanley PE. Westlake Village, CA: State Printing & Publishing, Inc., 1979, pp. 696.