

## Royal Society of Chemistry Prizes 2014

The UK Royal Society of Chemistry has announced its 2014 prize winners. We congratulate all the awardees and feature a selection of our authors here.

### Awarded ...



E. Nakamura



D. R. Spring



M. M. Stevens



M. Fuchter

The Centenary Prizes are awarded to allow three outstanding international chemists to give lectures in the British Isles. The winners of the 2014 prizes are **Karen Wooley** (Texas A&M University), **J. Fraser Stoddart** (Northwestern University), who was featured here when he was elected to the National Academy of Sciences,<sup>[1]</sup> and **Eiichi Nakamura** (The University of Tokyo) who has reported in *Angewandte Chemie* on a metastable cobalt(III) complex,<sup>[2]</sup> and is on the International Advisory Boards of the *Asian Journal of Organic Chemistry* and *Chemistry—An Asian Journal*. Nakamura studied at the Tokyo Institute of Technology, where he completed his PhD (supervised by Isao Kuwajima) in 1978. After postdoctoral research with Gilbert Stork at Columbia University, New York (1978–1980), he joined the faculty at the Tokyo Institute of Technology. He was made professor at The University of Tokyo in 1995. Nakamura's research interests include organic synthesis, physical organic chemistry, organic solar cells, and the use of high-resolution electron microscopy for mechanistic studies. Nakamura is also the recipient of the 55th Fujiwara Award (shared with Yasushi Miyashita, The University of Tokyo).

The Corday–Morgan Prizes are awarded to individuals who are 40 years old or below for their contributions to chemistry. **Milo Shaffer** (Imperial College London) was also recognized in this category.

**David R. Spring** (University of Cambridge) studied at the University of Oxford, where he carried out his doctorate (completed in 1998) with Sir Jack E. Baldwin. From 1999–2001, he was a postdoctoral fellow with Stuart L. Schreiber at Harvard University, and in 2001, he obtained a research fellowship at the University of Cambridge, where he subsequently joined the faculty and was made professor in 2013. Spring's research program involves the use of organic synthesis to make small molecules that can be utilized to understand and exploit biological systems. He has discussed strategies for the discovery of novel antibacterials in a Review in *Angewandte Chemie*.<sup>[3]</sup>

**Molly M. Stevens** (Imperial College London) studied at the University of Bath, and worked at the University of Nottingham for her PhD (awarded in 2000). After postdoctoral work with Robert S. Langer at the Massachusetts Institute of Technology, she started her independent career at Imperial College London in 2004, and is currently Professor of Biomedical Materials and Regenerative Medicine. Stevens and her group develop bio-inspired

materials and nanomaterials for applications in tissue engineering and biosensing as well as materials-based characterization methods that inform on the cell–material interface. She has reported in *Angewandte Chemie* on a method for the detection of histone-modifying enzymes.<sup>[4]</sup> Stevens is on the Advisory Boards of *Advanced Materials* and *Advanced Healthcare Materials*.

The Harrison–Meldola Memorial Prizes are awarded to chemists who are 34 years old or below. The winners of the 2014 prizes are **David Glowacki** (University of Bristol), **Erwin Reisner** (University of Cambridge), who was featured here when he won the Grammaticakis–Neumann Prize,<sup>[5]</sup> and **Matthew Fuchter** (Imperial College London), who has reported in *ChemMedChem* on optimization of the diaminoquinazoline chemotype for antimalarial activity.<sup>[6]</sup> Fuchter studied at the University of Bristol, and worked with Anthony G. M. Barrett at Imperial College London for his PhD (awarded in 2006). From 2006–2007, he was a postdoctoral researcher with Andrew B. Holmes at the University of Melbourne, and from 2007–2008, he was an academic fellow at the School of Pharmacy, University of London. He joined the faculty at Imperial College London in 2008. Fuchter's research program includes topics such as synthetic methods, natural product chemistry, chirality, medicinal chemistry and chemical biology, and materials science.

The Interdisciplinary Prizes are awarded for “for work at the interface between chemistry and other disciplines”. The winners of the 2014 prizes are **Steven P. Armes** (University of Sheffield), who was featured here when he won the Tilden Prize,<sup>[7]</sup> **Richard Pancost** (University of Bristol), and **Sabine L. Flitsch** (University of Manchester), who has reported in *Angewandte Chemie* on amine acyl exchange in peptides on gold surfaces.<sup>[8]</sup> Flitsch studied at the University of Münster and obtained her doctorate in 1985 from the University of Oxford for work supervised by Sir Jack E. Baldwin. She spent three years at the Massachusetts Institute of Technology as a research fellow with Har Gobind Khorana before returning to the UK to hold academic positions at the Universities of Exeter, Oxford, Edinburgh, and Manchester. She is currently Professor of Biological Chemistry at the University of Manchester. Flitsch's research is centered on the interface of chemistry and biology, with a focus on applications in biotechnology, in particular the use of biocatalysis for the synthesis of complex carbohydrates and glycoconjugates.

The Khorana Prize, which is presented for research carried out at the interface between chemistry and life sciences, has been awarded to **Gideon Davies** (University of York). Davies studied at the University of Bristol, where he received his PhD (supervised by Herman Watson and Len

Hall) in 1990. After postdoctoral research at the European Molecular Biology Laboratory (EMBL) in Hamburg (with Keith Wilson) and at the Centre de Recherches sur les Macromolécules Végétales in Grenoble (with Bernard Henrissat), he received a Royal Society University Research Fellowship at the University of York in 1996, and was made professor there in 2001. Davies and his research group are interested in structural enzymology and chemical biology of proteins involved in the synthesis and degradation of carbohydrates. He has reported in *Angewandte Chemie* on mannoimidazole-type inhibitors.<sup>[9]</sup>

**Thomas B. Rauchfuss** (University of Illinois at Urbana-Champaign) is the recipient of the Nyholm Prize for Inorganic Chemistry. Rauchfuss studied at the University of Puget Sound, and worked with D. Max Roundhill at Washington State University for his PhD (awarded in 1976). After postdoctoral work with David A. Buckingham at The Australian National University, he joined the faculty at the University of Illinois at Urbana-Champaign in 1978 and is currently Professor of Chemistry. Rauchfuss and his team are interested in supramolecular organometallic chemistry and bioorganometallic chemistry. He has reported in *ChemSusChem* on lignol cleavage by Pd/C.<sup>[10]</sup>

**Eric Bakker** (University of Geneva) is the winner of the Robert Boyle Prize for Analytical Science. Bakker studied at the ETH Zurich, where he completed his PhD (supervised by Wilhelm Simon) in 1993. After postdoctoral research with Mark E. Meyerhoff and Raoul Kopelman at the University of Michigan, Ann Arbor, he started his independent career at Auburn University in 1995. He moved to Purdue University in 2005, and was professor at Curtin University from 2007–2010. He was made Professor of Analytical Chemistry at the University of Geneva in 2010. Bakker's research involves electroanalysis and optochemical sensors. He has reported in *Angewandte Chemie* on the reversible sensing of heparin.<sup>[11]</sup> He is on the Editorial Board of *Electroanalysis*.

The Tilden Prizes are awarded to outstanding researchers 55 years old or below for advances in chemistry. The winners of the 2014 prizes are **Guy-Lloyd Jones** (University of Edinburgh), who was featured here when he was elected to the Royal Society,<sup>[12]</sup> **Iain McCulloch** (Imperial College London), and **Andrew I. Cooper** (University of Liverpool), who has reported in *Angewandte Chemie* on triazine-based graphitic carbon nitride.<sup>[13]</sup> Cooper studied at the University of Nottingham, where he was awarded his PhD in

1994 for work supervised by Martyn Poliakoff. He was a research fellow with Joseph M. DeSimone at the University of North Carolina at Chapel Hill (1995–1997), and with Andrew B. Holmes at the University of Cambridge (1997–1999). He started his independent career at the University of Liverpool in 1999, and is currently Professor of Chemistry. Cooper's research is focused on the design, synthesis, and properties of functional materials.

- [1] *Angew. Chem. Int. Ed.* **2014**, *53*, 6598; *Angew. Chem.* **2014**, *126*, 6716.
- [2] M. Maruyama, M. König, D. M. Guldi, E. Nakamura, Y. Matsuo, *Angew. Chem. Int. Ed.* **2013**, *52*, 3015; *Angew. Chem.* **2013**, *125*, 3089.
- [3] K. M. G. O'Connell, J. T. Hodgkinson, H. F. Sore, M. Welch, G. P. C. Salmond, D. R. Spring, *Angew. Chem. Int. Ed.* **2013**, *52*, 10706; *Angew. Chem.* **2013**, *125*, 10904.
- [4] J. E. Ghadiali, S. B. Lowe, M. M. Stevens, *Angew. Chem. Int. Ed.* **2011**, *50*, 3417; *Angew. Chem.* **2011**, *123*, 3479.
- [5] *Angew. Chem. Int. Ed.* **2014**, *53*, 2029; *Angew. Chem.* **2014**, *126*, 2059.
- [6] S. Sundriyal, N. A. Malmquist, J. Caron, S. Blundell, F. Liu, X. Chen, N. Srimongkolpithak, J. Jin, S. A. Charman, A. Scherf, M. J. Fuchter, *ChemMedChem* **2014**, DOI: 10.1002/cmde.201402098.
- [7] *Angew. Chem. Int. Ed.* **2013**, *52*, 9890; *Angew. Chem.* **2013**, *125*, 10074.
- [8] R. Castangia, M. Austeri, S. L. Flitsch, *Angew. Chem. Int. Ed.* **2012**, *51*, 13016; *Angew. Chem.* **2012**, *124*, 13191.
- [9] R. J. Williams, J. Iglesias-Fernández, J. Stepper, A. Jackson, A. J. Thompson, E. C. Lowe, J. M. White, H. J. Gilbert, C. Rovira, G. J. Davies, S. J. Williams, *Angew. Chem. Int. Ed.* **2014**, *53*, 1087; *Angew. Chem.* **2014**, *126*, 1105.
- [10] X. Zhou, J. Mitra, T. B. Rauchfuss, *ChemSusChem* **2014**, *7*, 1623.
- [11] G. A. Crespo, M. G. Afshar, E. Bakker, *Angew. Chem. Int. Ed.* **2012**, *51*, 12575; *Angew. Chem.* **2012**, *124*, 12743.
- [12] *Angew. Chem. Int. Ed.* **2013**, *52*, 7071; *Angew. Chem.* **2013**, *125*, 7209.
- [13] A. F. Bushell, P. M. Budd, M. P. Attfield, J. T. A. Jones, T. Hasell, A. I. Cooper, P. Bernardo, F. Bazzarelli, G. Clarizia, J. C. Jansen, *Angew. Chem. Int. Ed.* **2013**, *52*, 1253; *Angew. Chem.* **2013**, *125*, 1291.

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In this section, we report on various awards for chemists who are closely connected with *Angewandte Chemie* and its sister journals as authors, referees, or board members.



S. L. Flitsch



G. Davies



T. B. Rauchfuss



E. Bakker



A. I. Cooper