Currículo Resumido em Português

Prof. Dr. A. Ganesan

O Prof. Ganesan, possui graduação em Química e Microbiologia (1986) pela Universidade Nacional de Cingapura, Cingapura. Doutorado em Química (1992) pela Universidade da Califórnia, Berkeley, EUA e Pós-doutorado em Química (1993) pela Universidade de Harvard, nos EUA. Foi Pesquisador Sênior em Química do Centro de Pesquisas em Produtos Naturais (1993-1996) e Cientista Sênior e pesquisador responsável (1996-1999) do Instituto de Biologia Molecular e Celular da Universidade Nacional de Cingapura, Cingapura. Encarregado do curso de Química Orgânica (1999-2011) da Escola de Química da Universidade de Southampton, no Reino Unido e atualmente (desde 2011) é Professor de Química Biológica da Faculdade de Farmácia da Universidade de East Anglia, no Reino Unido. Tem como objetivos principais o avanço da síntese orgânica e sua aplicação para resolver os problemas fundamentais na interface química-biologia. Seus projetos variam de esforços puramente baseados em química para descobrir novas metodologias sintéticas até colaborações interdisciplinares com biólogos moleculares e celulares no Reino Unido e no exterior. O interesse particular de seu grupo é a exploração de produtos naturais como fonte de compostos biologicamente ativos e a síntese de bibliotecas voltadas para a descoberta e otimização de compostos líderes. Em tal esforço, a descoberta de novos inibidores de histona desacetilase depsipeptídios.

Curriculum

A. GANESAN, PROFESSOR of CHEMICAL BIOLOGY
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SHORT BIOGRAPHY

Ganesan obtained a BSc (Hons) in Chemistry at the National University of Singapore (1986). He did his PhD in synthetic methodology and total synthesis under the supervision of Clayton Heathcock at the University of California-Berkeley (1992) followed by a postdoctoral stint with Gregory Verdine at Harvard University. In 1993, he joined the Institute of Molecular and Cell Biology in Singapore as a Senior Research Chemist at the Centre for Natural Product Research and in 1996 became Principal Investigator of the Institute's Medicinal and Combinatorial Chemistry group. In 1999 he joined the University of Southampton in the UK as a Reader in the Combinatorial Chemistry Centre for Excellence. In 2011 he became the Chair of Chemical Biology at the University of East Anglia's School of Pharmacy. His research is at the chemistry-biology interface with particular emphasis on chemical biology, medicinal chemistry and organic synthesis.

SURNAME, NAME AND TITLE

Professor A. Ganesan

JOB TITLE AND AFFILIATION

Professor of Chemical Biology
School of Pharmacy
University Of East Anglia
Norwich NR4 7TJ
United Kingdom

WORK EXPERIENCE

2011- Professor of Chemical Biology
School of Pharmacy, University of East Anglia, United Kingdom

1999-2011 Reader in Organic Chemistry
School of Chemistry, University of Southampton, United Kingdom

1996-1999 Senior Scientist and Principal Investigator
Institute of Molecular and Cell Biology, National University of Singapore, Singapore

1993-1996 Senior Research Chemist
Centre for Natural Product Research, Institute of Molecular and Cell Biology, National University of Singapore, Singapore

EDUCATIONAL EXPERIENCE

1992-1993 Postdoctoral fellow in chemistry
Harvard University, USA. Supervisor: Professor Gregory. L. Verdine.

1986-1992 Doctoral student in chemistry
University of California-Berkeley, USA. Supervisor: Professor Clayton H. Heathcock.

1982-1986 Undergraduate in chemistry and microbiology

National University of Singapore, Singapore.
B.Sc.in Chemistry and Microbiology, 1985; B.Sc. Honours in Chemistry, 1986.

PROFESSIONAL SOCIETY ACTIVITIES

2004 Chair, Combinatorial Chemistry Gordon Research Conference, Oxford, UK.

2006- Treasurer, High Throughput Chemistry and New Technologies group, Royal Society of Chemistry, UK.

2007- Committee member, IUPAC Subcommitee for Medicinal Chemistry and Drug Development.

2008-2011 Committee member, Organic Division Executive, Royal Society of Chemistry, UK.

2010-2014 Chair, EU COST Action TD09/05 Epigenetics: From Bench to Bedside

ENTERPRISE ACTIVITIES

2005 Co-founder, Karus Therapeutics, United Kingdom.

2008-2010 Business fellow, London Technology Network, United Kingdom.

RESEARCH FOCUS

Primary goals are the advancement of the science of organic synthesis and its application to solve fundamental problems at the chemistry-biology interface. Projects range from purely chemistry-based efforts to discover new synthetic methodology to interdisciplinary collaborations with molecular and cell biologists within the UK and abroad. Many of his projects are concerned with the synthesis of biologically active molecules, either as molecular tools to dissect cellular function or as leads for drug discovery. Of particular interest in the group is the exploitation of natural products as a source of biologically active compounds and the synthesis of focused libraries for lead discovery and optimization. One such endeavour, the discovery of novel depsipeptide histone deacetylase inhibitors, led to the creation of the spinout company Karus Therapeutics that has completed Series B financing and is currently working towards Phase I trials in cancer and inflammation.

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SELECTED PUBLICATIONS

1) Hamon, M.; Dickinson, N.; Devineau, A.; Bolien, D.; Tranchant, M.-J.; Taillier, C.; Jabin, I.; Harrowven, D. C.; Whitby, R. J.; Ganesan, A.; Dalla, V. Intra- and Intermolecular Alkylation of *N*,*O*-Acetals and π-Activated Alcohols Catalyzed by in Situ Generated Acid. *J. Org. Chem*. **2014**, *79*, 1900-1912.

2)Tortorici, M.; Borrello, M. T.; Tardugno, M.; Chiarelli, L. R.; Pilotto, S.; Ciossani, G.; Vellore, N. A.; Bailey, S. G.; Cowan, J.; O'Connell, M.; Crabb, S. J.; Packham, G.; Mai, A.; Baron, R.; Ganesan, A.; Mattevi, A. Protein Recognition by Short Peptide Reversible Inhibitors of the Chromatin-Modifying LSD1/CoREST Lysine Demethylase. *ACS Chem. Biol*. **2013**, *8*, 1677-1682.

3) Tayler, M. C. D.; Marie, S.; Ganesan, A.; Levitt, M. H. Determination of Molecular Torsion Angles Using Nuclear Singlet Relaxation. *J. Am. Chem. Soc*. **2010**, *132*, 8225–8227.

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5) Yurek-George, A.; Cecil, A.; Mo, A. H. K.; Wen, S.; Rogers, H.; Habens, F.; Maeda, S.; Yoshida, M.; Packham, G.; Ganesan, A. The First Biologically Active Synthetic Analogues of FK228, the Depsipeptide Histone Deacetylase Inhibitor. *J. Med. Chem.* **2007**, *50*, 5720-5726.

6) Wen, S.; Carey, K. L.; Nakao, Y.; Fusetani, N.; Packham, G.; Ganesan, A. Total Synthesis of Azumamides A and Azumamide E, Evaluation as Histone Deacetylase Inhibitors, and Design of a More Potent Analogue. *Org. Lett.* **2007**, *9*, 1105-1108.
7) Bourel, L.; Rao, K. V.; Hamann, M. T.; Ganesan, A. Solid-phase Total Synthesis of Kahalalide A and Related Analogues. *J. Med. Chem*. **2005**, *48*, 1530-1535.
8) Yurek-George, A.; Habens, F.; Brimmell, M.; Packham, G.; Ganesan, A. Total Synthesis of Spiruchostatin A, a Potent Histone Deacetylase Inhibitor. *J. Am. Chem. Soc*. **2004**, *126*, 1030-1031.
9) Srinivasan, N.; Ganesan, A. Highly Efficient Lewis-acid Catalysed Pictet-Spengler Reactions Discovered by Parallel Screening. *Chem. Commun*. **2003**, 916-917.
10) Xiong, Q.; Zhu, X.; Wilson, W. K.; Ganesan, A.; Matsuda, S. P. T. Enzymatic Synthesis of an Indole Diterpene by an Oxidosqualene Cyclase: Mechanistic, Biosynthetic, and Phylogenetic Implications. *J. Am. Chem. Soc*. **2003**, *125*, 9002-9003.

SELECTED REVIEWS AND BOOK CHAPTERS

1) Fischer, J.; Ganellin, C. R.; Ganesan, A.; Proudfoot, J. Standalone Drugs. In Fischer, J., Ganellin, C. R. Eds., *Analogue-based Drug Discovery II*. Wiley, **2010**, 29-59.
2) Ganesan, A. Cyclative Cleavage as a Solid-phase Strategy. In Scott, P.J. H. Ed., *Linker Strategies in Solid-Phase Organic Synthesis*. Wiley, **2009**, 135-150.
3) Ganesan, A. The Impact of Natural Products upon Modern Drug Discovery. *Curr. Opin. Chem. Biol*. **2008**, *12*, 306-317.
4) Ganesan, A. Combinatorial Synthetic Design: The Balance of Novelty and Familiarity. *In* Bartlett, P. A., Entzeroth, M. Eds., *Exploiting Chemical Diversity for Drug Discovery*, RSC, Cambridge, **2006**, 91-111.
5) Ortholand, J.-Y.; Ganesan, A. Natural Products and Combinatorial Chemistry- Back to the Future. *Curr. Opin. Chem. Biol*. **2004**, *8*, 271-280.