University of Birmingham

Professor Nicholas Barnes

Professor of Neuropharmacology

Neurobiology

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About

Professor Nicholas Barnes is Professor of Neuropharmacology within the School of Clinical and Experimental Medicine, and has been at the University of Birmingham Medical School for 21 years. His research group's principal interest is 5-HT (5-hydroxytryptamine, serotonin).

Qualifications

BSc, PhD

Biography

Professor Nicholas Barnes has been at the University of Birmingham Medical School for 21 years. His research group's principal interest is 5-HT (5-hydroxytryptamine, serotonin).

Professor Barnes is co-Chairman of the International Union of Basic and Clinical Pharmacology (IUPHAR) Nomenclature Committee for Serotonin Receptors (**http://www.iuphar-db.org/DATABASE/FamilyContributorsForward?familyId=1** (http://www.iuphar-db.org/DATABASE/FamilyContributorsForward?familyId=1)). He is also Editor-in-Chief, Executive Editor and Associate Editor for the international journals *Frontiers in Neuropharmacology*, *Neuropharmacology*, and *Frontiers in Neuroscience*, respectively.

Professor Barnes is also a member of the working group that advises the UK Government on issues concerning the misuse of drugs and polysubstance abuse.

Professor Barnes supports the media at both local and national level with his expertise in pharmacology and the impact of his group's research (e.g. **www.telegraph.co.uk/health/healthnews/7624419/Prozac-can-help-in-the-battlewith-cancer.html** (http://www.telegraph.co.uk/health/healthnews/7624419/Prozac-can-help-in-the-battlewith-cancer.html)).

To help promote and support Knowledge Transfer in the College, Professor Barnes established the External Commercialisation Board (**www.birmingham.ac.uk/mds-ecb** (http://www.birmingham.ac.uk/mds-ecb)).

In addition to his academic-related positions, Professor Barnes is the Principal Founder and CEO of Celentyx Ltd (**www.celentyx.com** (http://www.celentyx.com/)); a pharmaceutical research and development company with a therapeutic focus on immune system disorders.

Teaching

- MB ChB
- BDS
- BMedSc
- BSc Biochem courses

Postgraduate supervision

Successfully supervised 18 PhD students and 1 MPhil student.

Current supervisor of 3 PhD student candidates

Research

Research concerning the neurotransmitter and local hormone, 5-hydroxytryptamine (5-HT; serotonin). From cellular and molecular approaches investigating the 5-HT receptors and the transporter, SERT, to proof of concept clinical investigations assessing the potential therapeutic utility of manipulating the 5-HT system.

Other activities

- Chair, International Union of Basic and Clinical Pharmacology (IUPHAR) 5-HT Receptor Nomenclature Committee
- Editor-in-Chief, *Frontiers in Neuropharmacology*
- Executive Editor, *Neuropharmacology*
- Guest Editor, *Current Opinion in Pharmacology*
- Associate Editor, *Frontiers in Neuroscience*

- Principal Founder & CEO, Celentyx Ltd

Publications

Higgs S, Cooper AJ, Barnes NM. Reversal of sibutramine-induced anorexia with a selective 5-HT(2C) receptor antagonist. Psychopharmacology (in press) Reversal of sibutramine-induced anorexia with a selective 5-HT(2C) receptor antagonist. **Psychopharmacology** (in press).

Massoura AN, Dover TJ, Newman AS, Barnes NM. **The identification of N-glycosylated residues of the human 5-HT3B receptor subunit: importance for cell membrane expression. (http://www.ncbi.nlm.nih.gov/pubmed/21138434)** **J Neurochem**. 116(6):975-83, 2011.

Chamba A, Holder MJ, Jarrett RF, Shield L, Toellner KM, Drayson MT, Barnes NM, Gordon J. **SLC6A4 expression and anti-proliferative responses to serotonin transporter ligands chlomipramine and fluoxetine in primary B-cell malignancies. (http://www.ncbi.nlm.nih.gov/pubmed/20363025)** **Leuk Res**. 34(8):1103-1106, 2010

Butler AS, Lindesay SA, Dover TJ, Kennedy MD, Patchell VB, Levine BA, Hope AG, Barnes NM. Importance of the C-terminus of the human 5-HT3A receptor subunit. **Neuropharmacology,** 56(1):292-302, 2009.

Barnes NM, Hales TG, Lummis SC, Peters JA. The 5-HT3 receptor--the relationship between structure and function. **Neuropharmacology**, 56(1):273-284, 2009.

Barnes NM, Gordon J. Harnessing serotonergic and dopaminergic pathways for lymphoma therapy: evidence and aspirations. **Semin Cancer Biol** 18(3):218-225, 2008.

Chamba A, Holder MJ, Barnes NM, Gordon J. **Characterisation of the endogenous human peripheral serotonin transporter SLC6A4 reveals surface expression without N-glycosylation. (http://www.ncbi.nlm.nih.gov/pubmed/18783838)** **J Neuroimmunol**. 204(1-2):75-84, 2008.

Dutton AC, Massoura AN, Dover TJ, Andrews NA, Barnes NM. Identification and functional significance of N-glycosylation of the 5-ht_{5A} receptor. **Neurochem Int.** 52(3):419-425, 2008

Expertise

Mechanism of action of drugs and their side effects; drugs of abuse; performance (sport) enhancing drugs; drug discovery; pharmaceutical research and development

Alternative contact number available for this expert: **contact the press office (http://www.birmingham.ac.uk/news/contacts/index.aspx)**

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