pharmacometrics

CURRICULUM VITAE

Robert Charles Jackson

Address: Pharmacometrics Ltd
162 High Street
Newmarket
Suffolk CB8 9AQ UK

Home: 51 North Road
Whittlesford
Cambridge
CB2 4NZ UK

Phone: +44 7720 046931 +44 1223 835105

E-mail: rjackson1943@aol.com

Education:

University of Cambridge	B.A. (Biochemistry)	1965
University of London	PhD (Biochemistry)	1968

Positions held:

1968-1970 Yale University School of Medicine, New Haven, Connecticut
Postdoctoral Fellow (Dept. of Pharmacology)

1970-1971 Scripps Clinic and Research Foundation, La Jolla, California
Research Associate (Dept. of Biochemistry)

1971-1974 Institute of Cancer Research, University of London
Dept. of Biochemical Pharmacology
Scientific Staff member, Grade 2

Indiana University School of Medicine
Laboratory for Experimental Oncology

1974-1979 Assistant Professor
1979-1982 Associate Professor (tenured)

1982-1990 Warner-Lambert/Parke-Davis Pharmaceutical Research Division
Ann Arbor, Michigan
Section Director, Tumor Biology (1982-1986)
Director, Chemotherapy Department (1986-1990)

1990-1991 DuPont Pharmaceuticals, Wilmington, Delaware
Group Director, Cancer Research

1991-1997 Agouron Pharmaceuticals, Inc. La Jolla, California
Vice President, Research & Development

1997-1999 Director, Research & Development and Chief Operating Officer
Chiroscience Ltd., Cambridge, England

1999-2000 Director, Research & Development
Celltech-Chiroscience plc., Slough, England

2001-2007 Executive Director, Research & Development and Chief Scientific Officer
Cyclacel Ltd., Dundee and Cambridge, UK

2007-present Director, Pharmacometrics Ltd., Cambridge UK

Consulting Appointments: (abbreviated list)

Experimental Therapeutics Study Section, DRG, NIH, 1981-1985
(Chairman, 1984-85)
Board of Scientific Counselors, Division of Cancer Treatment,
National Cancer Institute1986-1988
San Diego State University, Biotechnology Advisory Board, 1995-1998
Adjunct Professor of Biology, San Diego State University, 1995-1998
Member, Scientific Advisory Board, Cancer Research Technology, 1999-2003,
2007- Chairman, Scientific Advisory Board, Arakis Ltd., Cambridge UK, 2000-2005
Higher Education Funding Council for England: Panel member RAE2008 (2007-08)
Chairman, Discovery Committee, Cancer Research UK, 2008 - Vice Chairman,
Cancer Research UK, Clinical and Translational Research Committee (2009-)
Member, Scientific Advisory Board, Polaris Inc., San Diego California (2009-)
Member, Scientific Advisory Board, Pharminox Ltd., Nottingham UK (2009-)

Editorial Boards:

Cancer Research (1984-1989)
Journal of the National Cancer Institute (1988-1991)
Pharmacology and Therapeutics (1989-1996)
Anticancer Drug Design (1992-2000)

Other Professional Activities:

Gordon Conference on Chemotherapy of Cancer: Vice Chairman (1994), Chairman (1995)

Member and Chairman: Various ad hoc Study Sections (Division of Research Grants and National Cancer Institute, NIH, USA and Cancer Research Campaign, UK) including reviews of small business (SBIR) grants and cooperative drug discovery (NCDDG) grants.

Journal reviewer for "Nature", "Science", "Journal of Biological Chemistry", "Molecular Pharmacology", PNAS et al.

Book reviewer for "American Scientist", "Journal of Pharmaceutical Sciences"

Societies:

American Association for Cancer Research (1975) (Program Committee, 1989, 1996)
American Society for Biochemistry and Molecular Biology (1977)

Research Interests and Accomplishmants

Biochemistry of **anticancer and antiviral drug resistance** and selectivity.

Biochemical pharmacology of antimetabolites and cell cycle modulators.

New drug development: headed teams that developed 26 compounds to clinical trial, including trimetrexate, pentostatin, losoxantrone, the lipophilic thymidylate synthase inhibitor Thymitaq, the HIV protease inhibitor, nelfinavir, the matrix metalloprotease inhibitor AG3340, the local anaesthetic, levobupivacaine, the cdk inhibitor seliciclib, and the aurora kinase inhibitor CYC116. Five of these agents are now on the market, and others remain in clinical trials.

Theoretical pharmacology and computer modelling of chemotherapy.

Selected Publications: (from a total of 170)

Books:

R.C. Jackson
The Theoretical Foundations of Cancer Chemotherapy Introduced by Computer Models. 448 pp. Academic Press, Inc. (1992).

R.C. Jackson
Computer Techniques in Preclinical and Clinical Drug Development
238 pp., CRC Press, Inc. (1996)

Research Articles and Reviews: (from a total of 122)

H.B. Mistry, D.E. MacCallum, R.C. Jackson, M.A. Chaplain, F.A. Davidson
A pharmacodynamic model of aurora kinase inhibitors in the spindle assembly checkpoint. Frontiers in Bioscience 15: 249-259 (2010).

H.B. Mistry, D.E. MacCallum, R.C. Jackson, M.A. Chaplain, F.A. Davidson
Modeling the temporal evolution of the spindle assembly checkpoint and role of aurora B kinase. Proc Natl Acad Sci USA 105: 20215-20220 (2008).

R.C. Jackson, A.L Barnett , S.J. McClue, S.R. Green
Drug Discovery Case History: Seliciclib, A Cell Cycle Modulator that Acts through Inhibition of Cyclin-Dependent Kinases.
Expert Opinion on Drug Discovery 3: 131-143 (2008)

T. Radivoyevitch, K.A. Loparo, R.C. Jackson
A systems and control approach to the development of therapeutic gain strategies for specific cancers
BMC Cancer 6: 104-110 (2006)

C. Chassagnole, R.C. Jackson, N. Hussain, L. Bashir, C. Derow, J. Savin, D.A. Fell. Using a mammalian cell cycle simulation to interpret differential kinase inhibition in anti-tumour pharmaceutical development. BioSystems 83: 91-97 (2006).

R.C. Jackson
Predictive software for drug design and development: recent progress and future developments. Pharm Dev Regul. 1: 159-168 (2003)

R.C. Jackson
Structure-based drug design and its contributions to cancer chemotherapy. Chapter 10 in "Anticancer Drug Development" (edited by B.C. Baguley and D.J. Kerr), Academic Press (2002)

R.C. Jackson
The deeper the knowledge, the better the drugs?
Scrip Magazine 113: 31-33 (2002)

A.D. Baxter, J. Bird, R. Bannister, R. Bhogal, D.T. Manallack, R. Watson, D. Owen, J. Montana, J. Henshilwood and R.C. Jackson. D1927 and D2163: novel mercaptoamide inhibitors of matrix metalloproteases. In: Matrix Metalloprotease Inhibitors in Cancer Therapy (edited by N.J. Clendeninn and K. Appelt). Human Press (2000)

C.C. Zhang, T.J. Boritzki and R.C. Jackson
An inhibitor of glycinamide ribonucleotide formyltransferase is selectively cytotoxic to cells that lack a functional G1 checkpoint. Cancer Chemother Pharmacol 41: 223-228 (1998)

R.C. Jackson
A pharmacokinetic-pharmacodynamic model of chemotherapy of humanimmunodeficiency virus infection that relates development of resistance to treatment intensity. J. Pharmacokinet Biopharm 25: 713-730 (1997).

R.C. Jackson
Contributions of protein structure-based drug design to cancer chemotherapy. Seminars in Oncology 24: 164-172 (1997)

Abstracts (from a total of > 100)

F. Scaerou et. al.
Selective aurora A inhibitors: in vitro potency, specificity and cellular mode of action. EORTC-NCI-AACR Joint Meeting, Prague, Czech Republic, November 2006.

Griffiths G., Midgley C., Grabarek J., Cooper M., Glover D., Ingram L., Jackson W., Meades C., Mezna M., O'Boyle J., Wood G., Yuill R., Lane D.P., Jackson R., Fischer P.M., Wang S. Identification and characterization of kinase inhibitors that inhibit CDK2, CDK7 and CDK 9 activities, induce p53 and result in reduced proliferation and induction of apoptosis of human tumor cells. **Proc. Am. Assoc. Cancer Res.** 2004:**45**:Abs. 837.

S. Wang, G. Wood, C. Meades, G. Griffiths, C. Midgley, J. Grabarek, M. Cooper, S. Anderson, W. Jackson, R. Yuill, I. McNae, C. McInnes, D. Zheleva, M. Walkinshaw, D.P. Lane, R. Jackson, P. Fischer.
Discovery of 2-phenylamino-4-(pyrrol-3-yl)-pyrimidnes, a new class of CDK inhibitors: synthesis, crystal structures, in vitro antiproliferative activity and biochemical evaluation.
Clinical Cancer Research 9: supplement, C61 (2003)

S. Wang, S. Anderson, R. Clarke, K. Dincan, S. Eland, W. Jackson, C. Lyon, S.McClue, C. Meades, A. Osnowski, A. Perry, S. Renachowski, I, Stuart, M. Thomas, R. Westwood, G. Wood, R. Yuill, D.P. Lane, R.C. Jackson, P. Fischer.
Optimisation and evaluation of substituted 2-phenylamino-4-(thizol-5-yl)-pyrimidine CDK inhibitors as oral anticancer drug candidates.
Proc Amer Assoc Cancer Res 44: 374 (2003)