**Curriculum vitae** 

**Geoffrey Hale** 



Date of completion 29 Jun 2017

Current posts Freelance Scientist and Consultant

Managing Director, Bioarchitech

Chair of board of directors, The Native Antigen Company

Non-executive director, Absolute Antibody

Date of Birth 2nd September 1953

Nationality British

Address 64 Arlington Drive, Marston, Oxford, OX3 0SJ.

Tel +44 1865 248260

Email geoff@geoff-hale.com

University Fitzwilliam College, University of Cambridge

**Undergraduate** BA degree course: Natural Sciences

1971-1972 Biology of cells, Chemistry, Physics, Maths
1972-1973 Biochemistry, Chemistry, Exp. Psychology
1973-1974 Biochemistry
Class 1
Class 2.1

#### **Awards**

1972-1973 Exhibition 1973-1974 Scholarship

1972, 1973 Examination prizes

**PhD:** Department of Biochemistry, Cambridge.

1974-1977 Supervisor Prof. R.N. Perham

Thesis "Structure of the pyruvate dehydrogenase complex of E. coli."

### **Academic Career**

1977-1980 Research Assistant, Department of Biochemistry, Cambridge.

Employed on an SRC project grant, I continued my studies on the structure and function of the pyruvate dehydrogenase complex, using a wide range of protein chemical and physical biochemical techniques.

1980-1984 Research Assistant, Department of Pathology, Cambridge.

1985-1986 Research Associate, Department of Pathology, Cambridge.

1986-1995 Senior Research Associate, Department of Pathology, Cambridge

During this time I worked with Prof. H. Waldmann on therapeutic monoclonal antibodies, funded first by an MRC project grant, then by MRC programme grants and the Kay Kendall Research Fund. We identified a wide range of antibodies against human



leukocytes, defined rules for using them to clear target cells and used many of them in clinical trials of immunosuppression and tumour therapy.

1989-1995 Administrative payment and merit award.

1990-1995 Manager, Therapeutic Antibody Centre, Regional Blood Transfusion Centre, Cambridge.

I set up a group with five staff to produce pilot scale quantities of monoclonal antibodies for the clinical trials according to appropriate quality guidelines. I designed and supervised the construction of a clean room facility and was responsible for overall supervision of the antibody production as well as development of new techniques. In addition, I maintained regular liaison with a large number of clinical teams using the antibodies for trials.

1995-1998 Research Lecturer, Dunn School of Pathology, Oxford.
 1998-2000 Reader in Therapeutic Immunology, Dunn School of Pathology, Oxford
 2000-2007 Professor of Therapeutic Immunology, Dunn School of Pathology, Oxford
 1995-2007 Research Director, Therapeutic Antibody Centre, Oxford
 2004-now Qualified Person, recognised by MHRA for release of Investigational Medicinal Products.
 2007-2016 Visiting Professor of Therapeutic Immunology, Dunn School of Pathology, Oxford

During 1994-5 I designed and supervised the construction of a new purpose-built GMP facility for pilot production of therapeutic biologicals. I established a team of 8-9 staff, training them in good manufacturing practice and continuing antibody production and clinical liaison. We brought more than 25 new therapeutic antibodies to the clinic involving trials in more than 5000 patients. We worked closely with numerous Biotech companies to help in the commercial development of several projects. In 2001, Campath was approved by the FDA and EMEA for treatment of chronic lymphocytic leukaemia. Other antibodies, including CD4 and CD3 are currently in commercial development for induction of tolerance to protein therapeutics and treatment of autoimmune diseases. In June 2004, the TAC received a Manufacturer's Authorisation from the Medicines and Healthcare Products Regulatory Agency (MHRA), one of the first following the introduction of this scheme in May 2004. It has now changed focus to work on vaccines and gene-therapy products.

### **Commercial Career**

2002-2004 Founder and Consultant, BioAnaLab Limited
 2004-2010 Chief Executive Officer/Managing Director, BioAnaLab Limited
 2010-2011 Chief Scientist, Millipore BioPharma Services, Merck Millipore

I founded BioAnaLab as a spin-out based on the bioanalytical techniques developed at the TAC. The Company provides contract analytical services to the pharmaceutical industry and specialises in the analysis of biologics such as antibodies, vaccines, growth factors and cytokines. Technologies include ELISA, flow cytometry and surface plasmon resonance, and are applied to batch release, formulation, pharmacokinetics and immunogenicity studies in the course of pre-clinical and clinical trials. The company grew to employ 50 staff by 2009 when it was acquired by Millipore Corporation. I continued to manage the company through the integration and subsequent acquisition of Millipore by Merck KGaA.



| 2011-now  | Chairman of the board of directors, The Native Antigen Company Limited |
|-----------|--|
| 2011-now  | Sole Trader, Geoff Hale Developments                                   |
| 2012-now  | Director, Absolute Antibody Limited                                    |
| 2013-2015 | CEO and Director, Mablyte Limited                                      |
| 2015-now  | Managing Director, Bioarchitech Ltd                                    |

I am a founder, investor and board director of a number of biotechnology companies with interests in infectious disease, immunology, biological manufacture and testing and oncology.

## **Teaching**

| 1974-1980 | Supervisor for Fitzwilliam College in Biology of Cells and Biochemistry. |
|-----------|--|
|           | Assistant demonstrator in practical classes for Biochemistry.            |
| 1980      | Tutor for St. Andrew's Tutorial College, Cambridge.                      |
| 1980-1995 | Assistant demonstrator in practical classes in Pathology.                |
|           | Supervisor of numerous Part 2 research project students.                 |
|           | Supervisor of Immunology option (Part 2 Pathology)                       |
|           | Assistant lecturer in Pathology.   |
| 1981-2004 | Supervisor of several trainee technicians (from Youth Training scheme to |
|           | Higher National Diploma).  |
| 1984-1996 | Supervisor of three PhD students.  |
| 1993-2013 | Supervisor of numerous short-term work experience students               |
| 1996-2002 | Occasional lecturer on various immunology courses (Oxford, London,       |
|           | Cranfield Universities)  |
| 1997-2002 | Lecturer in Biochemistry (Biotechnology option course)                   |
| 2000-now  | Lecturer in Pathology (Immunology FHS option course)                     |
|           | Member of curriculum advisory committee, Brookes University              |
|           | Lecturer in Biochemistry   |
|           | •  |

Although teaching has not been my main job, I have enjoyed a wide variety of teaching experience; lecturing to large groups, conducting small tutorial classes, and demonstrating practical techiques to classes and individuals.

### **Publications**

1977-1992 Co-author of 17 original articles and one meeting abstract about the structure and function of pyruvate dehydrogenase - see enclosed list.

1982-now Author or co-author of >390 reviews, original articles and meeting abstracts connected with therapeutic uses of monoclonal antibodies - see enclosed list.

In addition to publications, the nature of my work in the TAC and at BioAnaLab necessitated the writing of a large number of formal documents, including standard operating procedures, annual reports, commercial contracts, reports of clinical trials etc.



## **Professional Societies**

| 1981      | British Society for Immunology.                                |
|-----------|--|
| 1992-2004 | International Society for Hematotherapy and Graft Engineering. |
| 1997-2001 | European Society for Animal Cell Technology                    |
| 1998-2000 | British Association for the Advancement of Science             |
| 1998-2000 | American Association for the Advancement of Science            |
| 2004-2011 | American Association for Pharmaceutical Sciences               |

# **Committee Membership**

2006-2012 NC3Rs/ABPI Biologicals Expert Working Group

## **Invited lectures**

| 1984 | Royal College of Pathologists symposium on Developments in Bone Marrow Transplantation. London.   |
|------|---|
|      | LRF workshop on Bone Marrow Transplantation. London.  |
| 1986 | 12th Annual meeting of the European Cooperative group for Bone Marrow Transplantation. Courmayeur.  |
| 1987 | 4th International symposium on therapy for acute Leukemias, Rome. Lymphokines in Haemopoiesis. London                                       |
| 1988 | Special Leukaemia Review - East Anglia IMLS. Cambridge  |
| 1900 | Clinical Use of Monoclonal antibodies. Amsterdam.   |
|      | 14th Annual meeting of the European Cooperative Group for Bone Marrow Transplantation. Chamonix.  |
|      | Paediatric Bone Marrow Transplantation meeting. Manchester.   |
|      | British Council course on Bone Marrow Transplantation. London.  |
|      | Leukaemia 1988 - recent progress in Biology and Clinical Research. Genoa.   |
| 1989 | Scientific symposium - American society for Haematology, Atlanta, USA   |
| 1990 | Satellite symposium on Non-Hodgkin's lymphoma, British Society of   |
|      | Haematology. Cambridge.   |
|      | Cancer and the Immune System, Venice  |
|      | From Clone to Clinic, Amsterdam   |
| 1991 | Immunotherapy with monoclonal antibodies, British Council, Cambridge.   |
| 1992 | Cell culture for clinic and pharmaceutical industry, Utrecht  |
| 1993 | Labelling, Quality Control and Clinical Efficacy of Monoclonal Antibodies for Scintigraphy, IAEA Symposium Cambridge.                       |
|      | New approaches for treating haematological malignancy, LRF International Symposium, London.   |
|      | Advances in Clinical Immunology, Royal College of Physicians, Edinburgh.  |
|      | Northern Bone Marrow Transplant Group Symposium, Leeds.   |
|      | Multiple Sclerosis Grantholders meeting, London.  |
| 1994 | Antibody-based Therapeutics, IBC, Washington, USA.  |
| 1995 | Biochemical Society Symposium, Manchester.  |
| 1996 | Royal Society of Medicine/Transplantation Society joint symposium, London.  |
| 1997 | European Biotechnology Symposium, Edinburgh.  |
|      | Biosym 97, Boston (Keynote Speaker).  |
| 1998 | American Society for Haematology, LeukoSite/Ilex CLL meeting, San Diego. International Marrow Transplant Registry Annual Meeting, Keystone. |



# DOCKET

# Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

# **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

# **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

# **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

### API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

### **LAW FIRMS**

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

### **FINANCIAL INSTITUTIONS**

Litigation and bankruptcy checks for companies and debtors.

## **E-DISCOVERY AND LEGAL VENDORS**

Sync your system to PACER to automate legal marketing.

