Jules A. HOFFMANN

Born in Echternach (Luxembourg)

Married, two children (1970, 1974).

French citizen.

Studies

General Education in Luxembourg (up to 1960)

University studies in Biology and Chemistry at the University of Strasbourg (1961-1965)

Doctoral thesis (Ph.D) in Biology, University of Strasbourg (1969)

Functions

Present : Distinguished Class Research Director at CNRS and Group Leader, Member of the Board of Administrators of CNRS,

President of the French National Academy of Sciences (since 2007)

Previous :

Director of the CNRS Research Unit 9022 "Immune Response and Development in Insects" (1978-2005)

Director of the Institute of Molecular and Cellular Biology, CNRS, Strasbourg (1993-2005)

Post-doctoral training

Institut für Physiologische Chemie, Philipps Universität, Marburg an der Lahn.

Professor P. Karlson, 1973-1974.

Member of Academies

Russian Academy of Sciences, 2006

American Academy of Arts and Sciences, 2003.

Member of EMBO (European Molecular Biology Organization), 1995.

Academia Europaea, 1993.

French National Academy of Sciences, 1992.

German Academy of Sciences Leopoldina, 1987

Distinctions

Dr honoris causa med., Munich, 2006

Robert Koch Prize for Immunology, 2004

Grand Prix de la Fondation pour la Recherche Médicale, 2004.

William B. Coley Award, Cancer Research Institute, 2003.

Prix Lacassagne, Collège de France, 1996.

Grand Prix Joannidès de l'Académie des Sciences, 1992.

Alexander von Humboldt Price, 1984.

Pergamon Price, 1980.

Sandoz-Wander Price, 1978.

Organization of Meetings

Innate Immunity : From Flies to Humans, French National Academy of Sciences, Paris, 2003.

Co-Chair of Keystone Symposium, Innate Immunity : Evolution and Link to Adaptative Immunity (with A. Ezekowitz and F. Kafatos), Taos 2002.

Convenor, Session 13 "Insect Physiology, Neurosciences, Immunity and Cell Biology", XXIth International Congress of Entomology, Iguassu Falls, Brazil, 21-26 August 2000.

Chair of the Workshop on Immunity, 40th Annual *Drosophila* Research Conference, Seattle, 24-28 Mars 1999 and the 41th Annual *Drosophila* Research Conference, Pittsburgh, 2000.

Chair, 2nd Gordon Research Conference on Antimicrobial Peptides, Barga, Italy, 25-30 Avril 1999.

Co-Chair, First Gordon Research Conference on Antimicrobial Peptides, Ventura, California, 10-14 Mars 1997.

Roussel-Uclaf Round Table on "Phylogenetic Perspectives in Immunity", Congress Center of Versailles, Paris, September 21-22, 1993.

EMBO Workshop on Insect Immunity, Mont Ste-Odile, September 6-13, 1992.

Jacques Monod Conference on "Molecular Aspects of Invertebrate Hormones", Roscoff, 1990.

International Meeting of CNRS on "Biosynthesis, Metabolism and Mode of Action of Invertebrate Hormones", Strasbourg, 1983.

Six National French Meetings on Ecdysone Research, Mont Ste-Odile, 1980-86.

European Symposium on Ecdysone Research, Strasbourg, 1979.

Insect Physiology Congress, Strasbourg, 1975.

Editorial Work

Guest Editor of *the Volume* on : *Primitive Immune Systems*, Immunological Reviews, 2004.

Co-Editor (with B. Beutler) of *the Section of Innate Immunity*, Current Opinion in Immunology, 2003.

Innate Immunity, (with A. Ezekowitz), Humana Press 2002.

Co-Editor (with A. Ezekowitz) of *Innate Immunity*. Current Opinion in Immunology, 1996, 1998.

Phylogenetic Perspectives in Immunity : The Insect Host Defense, in Molecular Intelligence Unit, R.G. Landes, 1994.

Cellular and Molecular Aspects of Insect Immunity, 34th Forum in Immunology, Research in Immunology 141, 895-960, Elsevier Institut Pasteur, Paris, 1990.

Biosynthesis, Metabolism and Mode of Action of Invertebrate Hormones, Springer-Verlag, 1985.

Progress in Ecdysone Research, Elsevier North Holland, 1980.

International Contracts (Coordinator or PI)

National Institutes of Health, Antiviral Defenses, 2005-2009

Research Training Network, European Program on Malaria-Mosquitoes, 2000-2004.

National Institutes of Health, Innate Immunity, 1998-2004 and 2004-2008.

Training and Mobility in Research, European Program, 1996-2000.

Human Frontiers in Science Program, Innate Immunity, 1995-1998.

Publications

As of January 2007, 250 publications, of which the following 12 have been selected :

12 major publications 1996-2006

FRANC N, DIMARCQ JL, LAGUEUX M, HOFFMANN JA & EZEKOWITZ A (1996). Croquemort, a novel *Drosophila* hemocyte/macrophage receptor that recognizes apoptotic cells. *Immunity*. Vol **4** 431-443

LEMAITRE B, NICOLAS E, MICHAUT L, REICHHART JM & HOFFMANN JA (1996). The dorsoventral regulatory gene cassette spaetzle/toll/cactus controls the potent antifungal response in *Drosophila* adults. *Cell*. Vol **86** 973-983

FERRANDON D, JUNG AC, CRIQUI MC, LEMAITRE B, UTTENWEILER-JOSEPH S, MICHAUT L, REICHHART JM & HOFFMANN JA (1998). A GFP-drosomycin reporter transgene reveals a local immune response in *Drosophila* that is not dependent on the *Toll* pathway. *EMBO Journal*. Vol **17** 1217-1227

DIMARCQ JL, BULET P, HETRU C & HOFFMANN JA (1998). Cysteine-rich antimicrobial peptides in invertebrates. *Biopolymers* (Peptide Science). Vol **47** 465-477

HOFFMANN JA, KAFATOS FC, JANEWAY CA JR & EZEKOWITZ RAB (1999). Phylogenetic perspectives in innate immunity. *Science*. Vol **284** 1313-1318

RUTSCHMANN S, JUNG AC, ZHOU R, SILVERMAN N, HOFFMANN JA & FERRANDON D (2000). Role of *Drosophila* IKK□amma in a Toll-independent antibacterial immune response. *Nature Immunology*. Vol **1** 342-347

TZOU P, OHRESSER S, FERRANDON D, CAPOVILLA M, REICHHART JM, LEMAITRE B, HOFFMANN JA & IMLER JL (2000). Tissue-specific inducible expression of antimicrobial peptide genes in *Drosophila* surface epithelia. *Immunity*. Vol **13** 737-748

GEORGEL, P., NAITZA S., KAPPLER, C., FERRANDON, D., ZACHARY, D., SWIMMER, C., KOPCZYNSKI, C., DUYK, G., REICHHART, J-M., AND HOFFMANN, J.A. (2001). *Drosophila* Immune Deficiency (IMD) is a Death Domain Protein that Activates Antibacterial Defence and Can Promote Apoptosis. *Developmental Cell*. Vol **1**, 1-20, 503-514

MICHEL T, REICHHART JM, HOFFMANN JA & ROYET J. (2001). *Drosophila* Toll is activated by Gram-positive bacteria via a circulating peptidoglycan recognition protein. *Nature*. Vol **414**, 756-759

GOTTAR M, GOBERT V, MICHEL T, BELVIN M, DUYK G, HOFFMANN JA, FERRANDON D, ROYET J, (2002). The *Drosophila* immune response against Gram-negative bacteria is médiated by a peptidoglycan recognition protein, *Nature*. Vol **416**, 641-644

LIGOXYGAKIS P, PELTE N, HOFFMANN JA, REICHHART JM, (2002), Activation of *Drosophila* Toll during fungal infection by a novel blood serine protease, *Science*. Vol **297**, 114-116

DOSTERT C, JOUANGUY E, IRVING P, TROXLER L, GALIANA-ARNOUX D, HETRU C, HOFFMANN JA, IMLER JL (2005). The Jak-STAT signaling pathway is required but not sufficient for the antiviral response of *Drosophila*. *Nature Immunology*. Vol **6**, 946-953.

FROLET C, THOMA M, BLANDIN S, HOFFMANN JA, LEVASHINA EA (2006). Boosting NF-κB Dependent Basal Immunity of *Anopheles gambiae* Aborts Development of *Plasmodium berghei*. *Immunity*. Immunity. 2006 Oct;25(4):677-85.

GOTTAR M, GOBERT V, MASKEVITCH A, REICHHART JM, WANG C, BUTT T, BELVIN M, HOFFMANN JA, FERRANDON D (2006). Dual detection of fungal infections in *Drosophila* through recognition of microbial structures and sensing of virulence factors. *Cell*. In press.