



Prof. Paul Adriaan Jan Janssen
Professor of Pharmacology and Chairman, Janssen
Research Foundation, Beerse, Belgium



Most important awards, prizes and academies

St.-Jozefscollege, Turnhout (Belgium): humanities (1937-1943); Facultés Notre-Dame de la Paix, Namur (Belgium): Bachelor of Natural Sciences (*magna cum laude*) (1943-1945); Catholic Uni-versity of Louvain and State University of Ghent (Belgium): Doctor of Medicine (*magna cum laude*) (1945-1951); Part-time assistant: State University of Ghent, to Prof. C. Heymans (1950-1956); University of Cologne (Germany), to Prof. Dr. J. Schuller (1951-1952); research in the family business, N.V. Produkten Richter (Belgium) (1953-1957); President and Director of re-search, Janssen Pharmaceutica NV. (1958-1991); Vice Chairman, Johnson & Johnson International, New Brunswick, NJ (USA) (1979-1991); Chairman, Janssen Research Foundation World-wide, Beerse (Belgium) (1987-2003); Honorary Chairman of the Board of Directors of Janssen Pharmaceutica NV. (1991-2003). He held over 100 patents as inventor of several drugs; authored or co-authored more than 832 scientific publications; received 20 honorary doctorates: Antwerpen, Gent, Leuven and Liège (Belgium), Edmonton, Halifax and Montreal (Canada), Prague (Czech Republic), Nanjing (China), Düsseldorf and Frank-furt (Germany), Szeged (Hungary), Dublin (Ireland), Beersheba (Israel), Pavia and Rome (Italy), Maastricht (Nether-lands), Gra-nada (Spain), Lund (Sweden) and Istanbul (Turkey); was a member/director of over 25

organisations, including: Academia Europea, American College of Neuropsychopharmacology, Collegium Inter-national Neuro-Psychopharmacologicum, Russian Academy of Medical Sciences, WHO Health R & D Review Committee; received more than 70 scientific and professional awards, including: J.F. Heymans Prize, State University of Ghent (Belgium) (1956); Carl Wilhelm Scheele Prize, Pharmaceutical Society of Sweden, Stockholm (1965); Taylor Manor Hospital, Psychiatric Award, Baltimore, Md (USA) (1970); Adrian Stevens Prize, Flemish Chemical Society, Ghent (Belgium) (1978); Johnson Medal for Extraordinary Achievements, New Brunswick, NJ (USA) (1978); Gairdner Foundation Award, Toronto (Canada) (1982); Award in Medicinal Chemistry, American Chemical Society (USA) (1984); Galenus Prize (Journal du Médecin, Journal du Pharmacien (Belgium) for ketoconazole (1984) and astemizole (1985) (1984); Quinquennial Prize for Pharmaceutical and Therapeutic Sciences, Belgium Royal Academy of Medicine (1984); Chauncey D. Leake Award, University of California, San Francisco (USA) (1986); Discoverers' Award, Pharmaceutical Manufacturers Association, Washington DC (USA) (1987); Dirk van Os Medal, Groningen University Fund Foundation (Netherlands) (1989); Jacob Henle Medal, Georg-August University, Göttingen (Germany) (1990); Carothers Award, American Chemical Society, Delaware Section (USA) (1990); Golden Jaroslav Heyrovsky Medal, Czechoslovakian Academy of Science, Brezna (Czechoslovakia) (1990); Distinguished Service Award, American College of Clinical Pharmacology, Nev. (USA) (1990); Decoration of the Order of the Rising Sun, Golden Rays with Neck Ribbon, conferred by His Majesty the Emperor of Japan (1991); Grand Officer of the order of the Crown, Belgian Royal Academy of Medicine (1991); Honorary Professor (1993) and Consulting Professor (1994/1996) in Dermatology, Stanford University (USA) (1993/1996); Galenus Prize for Risperdal® (risperidone), Canada (1995); Galenus Prize for Risperdal® (risperidone), France (1996); The Pharmaceutical Discoverer's Award, NARSAD (National Alliance for Research on Schizophrenia and Depression) (USA) (1996); Grand Officer of the Order of Leopold, Belgian Royal Academy of Medicine (1996); International Galenus Prize for Risperdal® (risperidone), London (UK) (1996); Visiting Professor, Faculty of Medicine, University of Nanjing, P.R. of China (1997); 'Chaire Pierre Dumont' award 1998-1999, School of Pharmacy, Catholic University of Louvain, Brussels (Belgium) (1998).

Summary of scientific research

The leitmotiv throughout Dr. Paul Janssen's medicinal research career was the relationship between the chemical structure of a compound and its biological activity in the organism. This had applications through the finding of new medicines in different medical disciplines. In turn, these new molecules expanded our fundamental knowledge of normal and pathological physiology. Over the years advances of medicine through dedicated drug research carried out under the guidance of Dr. Paul Janssen have been achieved in: analgesia and anaesthesia, psychiatry, parasitology, mycology, gastroenterology, cardiovascular diseases, allergology, immunology, oncology, and virology. In his final years Dr. Paul Janssen's interest had been directed towards the design of potential new medicines to use against HIV.

Main publications

Janssen P.A.J., *Pirinitramide (R03365), a potent analgesic with unusual chemical structure*. «The Journal of Pharmacy and Pharmacology», 13, 513-530 (1961); Janssen P.A.J., *A review of the chemical features associated with strong morphine-like activity*. «British Journal of Anaesthesia», 34 (4), 260-268 (1962); Janssen P.A.J., Niemegeers C.J.E., Dony J.G.H., *The inhibitory of fentanyl and other morphine-like analgesics on the warm water induced tail withdrawal reflex in rats*. «Arzneimittel-Forschung», 13, 502-507 (1963); Janssen P.A.J., Niemegeers C.J.E., Schellekens K.H.L., Verbruggen F.J. and Van Nueten J.M., *The pharmacology of dehydrobenzperidol, a new potent and short acting neuroleptic agent chemically related to haloperidol*. «Arzneimittel-Forschung», 13 (3), 205-211 (1963); Janssen P.A.J., Niemegeers C.J.E., Schellekens K.H.L., *Is it possible to predict the clinical effects of neuroleptic drugs (major tranquilizers) from animal data*. Part I. 'Neuroleptic activity spectra' for rats. «Arzneimittel-Forschung», 15, 104-117 (1965); Janssen P.A.J., Niemegeers C.J.E., Schellekens K.H.L., *Is it possible to predict the clinical effects of neuroleptic drugs (major tranquilizers) from animal data*. Part II. 'Neuroleptic activity spectra' for dogs. «Arzneimittel-Forschung», 15, 1196-1206 (1965); Janssen P.A.J., Niemegeers C.J.E., Schellekens K.H.L., *Is it possible to predict the clinical effects of neuroleptic drugs (major tranquilizers) from animal data*. Part III. *The subcutaneous and oral activity in rats and dogs of 56 neuroleptic drugs in the jumping box test*. «Arzneimittel-Forschung», 16, 339-346 (1966); Janssen P.A.J., *The pharmacology of haloperidol*. «International Journal of Neuropsychiatry», 3 (suppl. 1), 10-18 (1967); Janssen P.A.J., *Haloperidol and related butyrophenones*. «Psychopharmacological Agents», 2, 199-248 (1967); Janssen P.A.J., Niemegeers C.J.E., Schellekens K.H.L., Lenaerts F.M., *Is it possible to predict the clinical effects of neuroleptic drugs (major tranquilizers) from animal data*. Part IV. *An improved experimental design for measuring the inhibitory effects of neuroleptic drugs on amphetamine- or apomorphine-induced "chewing" and "agitation" in rats*. «Arzneimittel-Forschung», 17, 841-854 (1967); Janssen P.A.J., *The butyrophenone story*. «Discoveries in Biological Psychiatry», 165-179 (1970); Janssen P.A.J., Niemegeers C.J.E., Schellekens K.H.L., Lenaerts F.M., Verbruggen F.J., Van Nueten J.M., Schaper W.K.A., *The pharmacology of penfluridol (R16341), a new potent and orally long-acting neuroleptic drug*. «European Journal of Pharmacology», 11, 139-154 (1970); Janssen P.A.J., Niemegeers C.J.E., Schellekens K.H.L., Lenaerts F.M., Verbruggen F.J., Van Nueten J.M., Marsboom R.H.M., Herin V.V., Schaper W.K.A., *The pharmacology of fluspirilene (R06218), a potent, long-acting and injectable neuroleptic drug*. «Arzneimittel-Forschung», 20 (11), 1689-1698 (1970); Janssen P.A.J., *Recent advances in the treatment of parasitic infections in man*. «Progress in Drug Research», 18, 191-203 (1974); Janssen P.A.J., *Butyrophenones and diphenylbutylpiperidines*. «Psychopharmacological Agents», 3, 129-158 (1974); Janssen P.A.J., Niemegeers C.J.E., Marsboom R.P.H., *Etomidate, a potent non-barbiturate hypnotic. Intravenous etomidate in mice, rats, guinea-pigs, rabbits and dogs*. «Archives Internationales de Pharmacodynamie et de Thérapie», 214 (1), 92-132 (1975); Janssen P.A.J., *The levamisole story*. «Progress in Drugs Research», 20, 347-383 (1976); Janssen P.A.J., Van Bever W.F.M., *Miconazole*. In: *Pharmacological and Biochemical Properties of Drugs Substances 2*, Ed. M.E. Goldberg, American Pharmaceutical Association, Academy of Pharmaceutical Sciences,

Washington, pp. 333-354 (1979); Janssen P.A.J., *The four pillars of effective drug research*. «Clinical Research Reviews», 1 (2), 87-89 (1981); Janssen P.A.J., *The pharmacology of specific, pure and potent serotonin 5-HT₂ or S₂-antagonists*. In: *Advances in Pharmacology and Therapeutics II*, Vol. 4, *Biochemical Immunology Pharmacology*, Eds. H. Yoshida et al., Pergamon Press, pp. 21-33 (1982); Janssen P.A.J., *Potent, new analgesics, tailor-made for different purpose*. «Acta Anaesthesiologica Scandinavica», 26, 262-268 (1982); Janssen P.A.J., Niemegeers C.J.E., Awouters F., Schellekens K.H.L., Megens A.A.H.P., Meert T.F., *Pharmacology of risperidone (R64766), a new antipsychotic with serotonin-S₂ and dopamine-D₂ antagonistic properties*. «The Journal of Pharmacology and Experimental Therapeutics», 244 (2), 685-693 (1988); Janssen P.A.J., Awouters F.H.L., *Is it possible to predict the clinical effects of neuroleptics from animal data? V. From haloperidol and pipamperone to risperidone*. «Arzneimittel-Forschung», 44 (I), 269-277 (1994).