

# CURRICULUM VITAE: CARL-HENRIK BROGREN

## A: Education

1965-1974 University of Copenhagen, Cand.scient. in biochemistry and immunchemistry

1977 Institut Pasteur i Paris, Diplome d'Immunologie Approfondie (Ph.D)

## B: Positions and Honors.

1973-1974 The Protein Laboratory, University of Copenhagen, Denmark. Deputy assistant professor.

1975 Service d'Immunologie Cellulaire, Institut Pasteur, Paris, France. Research fellow.

1975-76 Pathological-Anatomical Institute, County Hospital, Copenhagen. Research associate.

1977 Unite Neurobiologie Moleculaire, Institut Pasteur, Paris, France, Research associate, EMBO-fellow.

1978-1981 Institute of Experimental Immunology, University of Copenhagen. Predoctoral fellow.

1981-1983 Hagedorn Research Institute, Novo-Nordisk A/S, Gentofte, Denmark, Postdoctoral fellow.

1983 Hopital Broussais, Paris, France. Research associate, INSERM postdoctoral fellowship.

1983-1985 Institute of Occupational Health, Ministry of Labour, Copenhagen. Senior chemist.

1985-1988 Department of Animal Physiology, University of Copenhagen. Assistant professor.

1988-1989 Centre d'Océanologie de Marseille, Université d'Aix-Marseille, France. Research director DR1 EPHE.

1990-2002 Institute of Food Safety, Ministry of Health, Copenhagen, Denmark. Senior scientist.

2002-2004 Department of Food Science, University of Copenhagen, Denmark, Associate professor.

2005-2010 Department of Biomedical Sciences, University of Copenhagen. Ass. professor, Research coordinator.

2010-to now The Bartholin Institute, Rigshospitalet, Copenhagen Biocenter, Copenhagen, Associate professor.

2012-to now CEO and CSO, ImmunoSigns, Hellerup. Denmark.

## C: Honors and Memberships:

1975 Danish Pasteur Society fellowship

1977 EMBO fellowship, Institut Pasteur, Paris, France.

1983 INSERM fellowship, Hopital Broussais, Paris, France.

1983-to now Member of the European Association for the Study of Diabetes

1986 NATO fellowship. McGill University, Victoria Hospital, Montreal, Canada.

1997-2007 President of the Nordic Separation Science Society

1998-2012 Vice-president of the Danish Society for Flow Cytometry

2001 Fulbright senior fellowship, The Sandoz-Burnham Institute, La Jolla, California, USA.

2004 Chair Joliot, Ecole Supérieure de Physique et Chimie Industrielles, Paris, France.

2005 Danish Pasteur Society, senior fellowship

2005-2008 BioCampus research priority area coordinator, University of Copenhagen.

2006-to now Member of the American Diabetes Association (ADA)

2007-to now Member of the Immunology of Diabetes Society

2008 Chair Curie-Joliot, Ecole Supérieure de Physique et de Chimie Industrielles, Paris, France.

2009 Referee for Diabetologia, Germany

2010 Chevalier dans L'Ordre des Palmes Académiques, Paris, France

2011-2012 Member of the Advisory scientific board for the 1st World Diabetes Congress, Beijing, China.

## D: Selected peer-reviewed publications (in chronological order).

1. Brogren CH, and Lernmark A.: Islet Cell Antibodies in Diabetes. Clinics in Endocrinology and Metabolism. 11 (2), 409-430. 1982 (review).
2. Brogren CH and Andersen P: BB Wistar Rat Monoclonal Autoantibodies. Metabolism – Clinical and Experimental, 32 (7), 165 (1983)
3. Brogren CH, Baekkeskov S, Dyrberg T, Lernmark A, Marnier B, Nerup J, and Papadopoulos GK.: Role of islet cell antibodies in the pathogenesis of type 1 diabetes. Current Problems in Clinical Biochemistry 12, 65-85. 1983
4. Brogren CH, Hirsch F, Wood P, Druet P, and Poussier P.: Production and characterization of a monoclonal islet cell surface autoantibody from the BB rat. Diabetologia 29 (5), 330-333. 1986.
5. Brogren CH, Buschard K, Ropke C, and Rygaard J.: Genetics of the autoimmune BB-rat in the study of diabetes mellitus heredity. In: Rygaard J et al. (eds). Immune-deficient Animals in Biomedical Research. Karger AG, Basel, NY, pp. 117-121, 1987.

6. Buschard K, Brogren CH, Ropke C, and Rygaard J. Antigen expression of the pancreatic beta-cell is dependent on their functional state, as shown by a specific, BB rat monoclonal autoantibody IC2. *APMIS*. 96(4), 342-6. 1988.
7. Scott FW, Cloutier HE, Souligny J, Riley WJ, Hoorfar J, and Brogren CH: Diet and antibody production in the diabetes-prone BB-rat. In: Larkin P et al. (eds.). Proceedings of the International IDF-Congress "immunology of Diabetes", Sydney, Nov 1988, alias Diabetes 1988, Elsevier Science Publ. B.V., pp.763-767, 1989.
8. Aaen K, Rygaard J, Josefsen K, Petersen H, Brogren CH, Horn T, and Buschard K.: Dependence of antigen expression on functional state of beta-cells. *Diabetes*. 39 (4), 697-701. 1990.
9. Hoorfar J, Buschard K, and Brogren CH.: Impact of dietary protein and fat source on the development of insulin-dependent diabetes in the BB-rat. *Diabetes Research* 20 (1), 33-41. 1992.
10. Nielsen EM, Engberg J, Fussing V, Petersen L. Brogren CH, and On SLW: Evaluation of Phenotypic and Genotypic Methods for Subtyping of *Campylobacter jejuni* Isolates from Humans, Poultry and Cattle. *Journal of Clinical Microbiology* 38 (10), 3800-3811, 2000.
14. Onda M, Nakamura I, Suzuki S, Takenoshita S, Brogren CH, Stampanonis, Li D, and Rampino N.: Microsatellite Instability in Thyroid Cancer: Hot Spots, Clinicopathological Implications and Prognostic Significance. *Clinical Cancer Research*. 7 (11), 3444-3449, 2001.
15. Onda M, Li D, Suzuki S, Nakamura I, Takenoshita S, Brogren CH, Stampanoni S, and Rampino N. Expansion of Microsatellite in the Thyroid Hormone Receptor-alpha1 gene Linked to Increased Receptor Expression and Less Aggressive Thyroid Cancer. *Clinical Cancer Research*. 8 (9) 2870-2874, 2002.
16. Bernbom N, Licht TR, Brogren CH, Jelle B, Johansen AH, Badiola I, Vogensen FK, Norrung B. Effects of *Lactococcus lactis* on composition of intestinal microbiota: Role of nisin. *Appl. Environ. Microbiol.* 72(1), s. 239-44, 2006
17. Saudek F, Brogren CH, Manohar S. Imaging the Beta-cell mass: why and how. *Rev Diabet Stud.* 5(1):6-12, 2008. Epub 2008 May 10
18. Bernbom N, Jelle B, Brogren CH, Vogensen FK, Nørrung B, Licht TR. Pediocin PA-1 and a pediocin producing *Lactobacillus plantarum* strain do not change the HMA rat microbiota. *Int J Food Microbiol.* 130(3):251-7, 2009
19. Kasisca V, and Brogren, CH: Interview - Editor Vaclav Kasicka and Carl-Henrik Brogren speak with Dr. Gabriel Peltre. *J. Sep. Sci.* 33, 286-89, 2010.
20. Brogren CH, Vismann P, Goa W, Desai M, and Buschard K. Biodistribution of the monoclonal autoantibody IC2 and its F(ab')<sub>2</sub> and Fab fragments in mice and rat using <sup>124</sup>I and <sup>125</sup>I radioiodination with the lodogen method. (manuscripts in preparation, preliminary presentation at the ADA 70th Scientific Session, Orlando, Florida, June 2010 (Webcast))
21. Brogren CH, Engkilde K, Sørensen JØ, Wismann P, Gao W, Desai M, Mia GKA, Buschard K, Eliasson L, Bonsart LL, Bachmann M, Contag CH, Renaut L, Mondon P. The pancreatic beta-cell specific monoclonal autoantibody IC2 applied to noninvasive bioluminescent imaging in mice for estimating of residual beta-cell mass. What is its target? 3rd International Pancreatic Islet Symposium, Brussels
22. Bronsart L, Bachmann MH, Stokes C, Schmidt TL, Cochran F, Brogren CH, Renaut L, Mondon P, Contag CH. Genetic Engineering of the IC2 Autoantibody for Molecular Imaging of the Pancreatic Beta-Cell Mass, World Molecular Imaging Congress, San Diego, September 2011. P629 26.
23. Brogren CH. The IC2 Autoantibody-based Noninvasive Imaging of Functional Beta-Cell Mass and the Molecular and Cellular Affinity and Specificity of the Biomarker IC2 Workshop: Imaging beta-cells – Programming Beta Cell Development, Impairment and Regeneration. October 2011, Elsinore, Denmark. Invited speaker and Imaging workshop chairman
24. Brogren C-H, Engkilde K, **Pedersen ID**, Jensen KL, Buschard K, Blaise M, Bronsart L, Bachmann MH, Contag CH, Renaut L, Carles MJ, Souyris N, Mondon P (2012). The pancreatic beta-cell surface specific monoclonal autoantibody IC2 for non-invasive beta-cell imaging and inhibition of the NKT immune regulatory function. *Diabetes*, 61 (S1), A679. The 72<sup>nd</sup> American Diabetes Association Scientific Sessions, June 8-12, 2012, Philadelphia, USA.
25. Brogren CH, **Pedersen ID**, Jensen KL, Briat A, Renaut L, Mondon P, Petersen W, Manohar S, Buschard K, Christiaen D (2012). Multimodality noninvasive imaging of the functional beta-cell mass using various formats of the beta-cell surface specific monoclonal autoantibody IC2. World Molecular Imaging Congress, September 5-8, 2012, Dublin, Ireland.
25. Brogren C-H, **Pedersen ID**, Jensen KL, Briat A, Petersen W, Manohar S, Bronsart L, Bachman MH, Renaut L, Mondon P, Hesse B, Kjær A, Buschard K, Christiaen D, Contag CH (2012). Multimodality noninvasive imaging of the functional beta-cell mass using various formats of the beta-cell surface specific monoclonal autoantibody IC2. *Diabetologia*, 55 (S1), S116. The 48<sup>nd</sup> European Association for the Study of Diabetes Annual Meeting, October 1-7, 2012, Berlin, Germany.
26. Sørensen JØ, Buschard K, **Brogren CH** (2013). The Role of Type-II NKT Cells in Type-1 Diabetes. *APMIS*, in press.
27. Desai MN, Mia GKA, Nalla A, Hesse B, Kjær A, Buschard K, and **Brogren CH**. Radioiodination of the monoclonal autoantibody IC2 – a biomarker for pancreatic beta-cells - its cellular affinity and biodistribution. (Manuscripts under revision for *Nuclear Medicine and Biology*)
28. Mia GKA, Desai MN, Nalla A, Prats C, Larsen JK, Mark Danley J, Spitalnik SL, Buschard K, and **Brogren CH**. IC2, a beta-cell specific BB-rat monoclonal autoantibody, binds to sulphated glycolipids. (Manuscripts under revision for *Glycoconjugate Journal*)