

November 2016

## CURRICULUM VITAE



### **BJÖRN OLOF NILSSON**

Professor Bjorn O. Nilsson, the President of the Royal Swedish Academy of Engineering Sciences (IVA), has a doctorate degree in biochemistry from the Royal Institute of Technology (KTH) in Stockholm, where he today holds an adjunct position. Prof. Nilsson has served in a number of management and executive roles in the biotechnology and pharmaceutical industry, mainly within the Pharmacia group of companies. These leading operational positions include roles as public company CEO, President and Vice President. Prof. Nilsson was also for a period of four years Chairman of the Swedish Biotechnology Industry Organization (SwedenBIO). Today, in addition to the IVA presidency, he serves as corporate Board member, including Chairman of the Board of the public biotechnology company BioInvent International AB (OMX Small Cap) and a board director of the engineering company AF (OMX Mid Cap). Prof. Nilsson is also a board and committee member of a number of international, national, governmental and non-governmental organizations in areas such as science, education and innovation. Most notably in 2016, Prof. Nilsson was elected as a member of the Governing Board of the European Institute of Innovation and Technology (EIT) and he served on the Reference Group in preparation of the Research Bill of the Swedish government. Further, he is since March 2016 President of the Swedish Athletic Association.

- Born January 11, 1956 in Sollentuna, Stockholm, Sweden

### Post Graduate Education

- September 1976 - September 1981  
Royal Institute of Technology (RIT, *Swedish: KTH*), Stockholm, Sweden  
*Degree: Master of Science in Chemistry, specialized in Biotechnology (Swedish: Civ.Ing. i Kemi)*
- February 1982 - October 1986  
RIT Graduate school, Dept of Biochemistry, Stockholm, Sweden  
*Degree: Ph.D. in Biochemistry (Swedish: Tekn. D. i Biokemi)*
- October 1986 - October 1988  
Post-Doctoral Research Fellowship at Genentech, Inc., Dept of Protein Engineering, South San Francisco, USA

### Positions held

- Feb. 1982 - Oct. 1986      Research Assistant (Ph.D. student), RIT, Dept of Biochemistry & Biotechnology, Stockholm, Sweden
- Oct. 1986 - Oct. 1988      Post-Doctoral Research Fellow, Department of Protein Engineering, Genentech, Inc., South San Francisco, USA
- Nov. 1988 - May 1990      Assistant Professor at RIT (Dept of Biochemistry), Stockholm, Sweden
- May 1990 - May 1991      Scientist, Kabi Pharmacia, BioScience Center, Stockholm, Sweden
- May 1990 -                      Adjunct Associate Professor, RIT, Dept of Biochemistry, Stockholm, Sweden
- May 1991 - June 1992      Senior Scientist, Kabi Pharmacia BioScience Center, Stockholm, Sweden
- June 1992 - October 1996    Head of Structural Biochemistry, Kabi Pharmacia Biopharmaceuticals, Stockholm, Sweden
- October 1996 –Dec. 1997    Director of Biology Research, Pharmacia & Upjohn AB, Stockholm, Sweden
- Jan. 1998 – June 2001      Global Vice President Protein Area R&D, Vice President R&D Sweden, Amersham Pharmacia Biotech, SE-751 84 Uppsala, Sweden
- July 2001 – March 2005      President & Chief Executive Officer, Karo Bio AB, Novum, SE-141 57 Huddinge, Sweden
- June 2005 – October 2006    Senior Vice President, Business & Technology Development, Biacore International AB, SE-754 50 Uppsala, Sweden

- January 2007 - May 2008 Senior Vice President  
Corporate Development  
Biovitrum AB,  
SE-112 76 Stockholm, Sweden
- August 2008 - Professor, President  
Royal Swedish Academy of Engineering  
Sciences (IVA)  
Box 5073  
10242 Stockholm

## On-going and completed Non-Employment External Assignments

### CORPORATE / FOUNDATIONS

- Chairman of the Board of the public company *Bioinvent International* (Lund, Sweden) (OMX Small Cap, director since 1999, chairman since 2011-)
- Board Director and member of the Audit Committee of the public company *ÅF* (OMX Mid Cap, Stockholm, Sweden) (2010-)
- Chairman of the Board of the foundation *ÅForsk* (director since 2008, chairman since 2015-) which is the largest shareholder of *ÅF*
- Chairman of the *Stockholm Science City Foundation* (2015-)
- Member of the Board of the foundation *Stiftelsen Tage Erlanders fond för naturvetenskap och teknik* (2016-)

### ACADEMIC / OTHERS

- Chairman of the *Swedish Athletic Association* (Svenska Friidrottsförbundet, SFIF) (2016-)
- Member of the Governing Board of the *European Institute of Innovation and Technology (EIT)* (2016-)
- Member of the Strategic Board of the *Umea Institute of Design* (2013-)
- Member of the Board of the NGO *SwedNanoTech* (2010-)
- Chairman of the research informatics initiative *SweCRIS* of the *Swedish Research Council* (2010-)
- Board member of the technology group of the *Agency for Strategic Products* (2008-)
- Member of the Board of *EuroCASE*, representing the Royal Swedish Academy of Engineering Sciences, IVA (2008-)
- Member of the Board of the *Royal Swedish Academy of Engineering Sciences (IVA)* (2008-)
- Member of the Board of the NGO *Vetenskap och Allmänhet* ("Science and Society") (VA) (2008-)
- Member of the Board of the NGO Science Center *Universeum* (2008-)
- Chairman of the Board of the *Protein Technology Center* of Vinnova ("ProNova") at Royal Institute of Technology (2006-)
- Adjunct Associate Professorship, Department of Biochemistry, RIT (May 1990-)

[NGO means *Non-governmental Organization*]

#### **SELECTED COMPLETED ASSIGNMENTS**

- Member of the Government's reference group in preparation of the *Swedish Research Bill 2016* (2015-2016)
- Member of the Board of the *Swedish Educational Broadcasting Company (UR)* (2013-2016)
- Member of the Executive Committee of *Euro-CASE*, the joint organization of 22 European engineering science academies (2013-2016)
- Member of the Board of *University of Gavle* (2013-2016)
- Chairman of the Board of the *Center for Biomembrane Research* of the Swedish Strategic Research Foundation at Stockholm University (2006-2016)
- Chairman of the Science Working Group of the *Swedish Biotechnology Industry Organization, SwedenBIO* (2006-2008)
- Member of the Board of the *Strategic Research Center of Integrative Recognition in the Immune System* of the Swedish Strategic Research Foundation at Karolinska Institute (2005-2008)
- Board Director of the public company *Diamyd Medical AB* (Stockholm, Sweden) (2005-2007)
- Chairman of the *Swedish Biotechnology Industry Organization, SwedenBIO* (2002-2006)
- Member of the *Board of the Wallenberg Foundation Functional Genomics Program North* (2000-2006)
- Member of the Vinnova Steering group for *National Biotechnology Plan* (2005)
- Board Director of *Karo Bio* (Huddinge, Sweden) (2002-2005)
- Chairman of the Board of the *Structural Biology Program* of the Swedish Strategic Research Foundation (1996-2004)
- Deputy Chairman of Section X (Biotechnology) of the *Royal Swedish Academy of Engineering Sciences* (2001-2003)
- Ph.D. faculty opponent (Royal Institute of Technology, Stockholm) (2003)
- Member of the *Life Science Strategy Group of the Swedish Strategic Research Foundation* (2001-2002)
- Member of the *Evaluating Committee of the Biotechnology Program* of the *Swedish Research Council of Engineering Sciences* (TFR) (1998-2002)
- Member of the Board of the *Nanochemistry Program* of the *Swedish Strategic Research Foundation* (1998-2002)
- Member of the Board of the *National Committee for Biophysics* (branch of the *Swedish Royal Academy of Sciences*) (1996-2001)
- Member of "IVA 2000", a working group within the *Royal Swedish Academy of Engineering Sciences* for the re-engineering of the organisation (2000)
- Member of the *Board of the Stockholm Biomedical Graduate School Program* of the Swedish Strategic Research Foundation (1996-1999)

- Participant of the *Royal Technology Mission* to Canada 1999, Headed by HM King Carl XVI Gustaf
- Member of the *Medicinal Chemistry Committee* of the Swedish Pharmaceutical Society (1996-1998)
- Member of the *Board of the European Synchrotron Research Facility* (ESRF) Committee of NFR (1994-1998)
- Member of the Industrial Research Group of the *Royal Swedish Academy of Engineering Sciences* (1995-1997)
- Member of the Board of the *Swedish Chemical Society* ("Kemistsamfundet"), Stockholm Division (1993-1997)
- Member of Board of the *Department of Biochemistry* at the Royal Institute of Technology (RIT; KTH) in Stockholm (1994-1997)
- Expert evaluator of the *European Commission for the IV framework* program (Biotechnology) (1996)
- Chairman of the *Molecular Recognition National Planning Group* of the Swedish Strategic Research Foundation (1995)
- Member of the *Medical BioScience Committee* of the Swedish Strategic Research Foundation (1994-1996)
- Member of *NUTEK Biotechnology Committee BoTiS* ("Biologi och Teknik i Samverkan") (1994)
- Member of the *Structural Biology National Planning Group* of the Swedish Strategic Research Foundation (1994)
- Faculty Ph.D. opponent twice (Karolinska Institutet & University of Linköping) (1994)
- Scientific organizer of the *Scheele Symposium* (November 1994)

### Memberships / Others

- Fellow of the *Royal Swedish Academy of Engineering Sciences* (Swedish: Kungl. Ingenjörsvetenskapsakademien, IVA), Section for Biotechnology (1996-)
- Member of the *American Association for the Advancement of Sciences* (AAAS) (1986-)
- Member of the *Protein Society* (1988-)
- Member of the *Swedish Chemical Society* ("Kemistsamfundet") (1992-)
- Member of the *Swedish Pharmaceutical Society* ("Apotekarsocieteten") (1995-)

### Bibliography

- Ph.D. Thesis entitled "*Fusions to the gene encoding staphylococcal protein A*" (Royal Institute of Technology, Stockholm, 1986, ISBN 91-7170-997-5), 63 full scientific papers and 8 patents.

## Recognition Awards

- Post-Doc Fellowship award from *the Swedish Research Council of Engineering Sciences* (TFR) (1986-1988)
- *Genentech Recognition Award* (1988)
- *Pharmacia & Upjohn Science and Medicine Award* (1996)
- Recipient of a *Bulgarian presidential award* (2016)
- Recipient of *H.M. The King of Sweden's Medal of the 8th size with the ribbon of the Order of the Seraphim* (2016)

## Supervision of graduate students:

- Helena Rohndal, Ph.D. 1994
- Sophia Hober, Ph.D. 1997
- Magnus Jansson, Ph.D. 1998
- Lena Jendeberg, Ph.D. 1998

## Bibliography

### FULL SCIENTIFIC PAPERS:

1. Uhlén, M., Nilsson, B., Guss, B., Lindberg, M., Gatenbeck, S. & Philipson, L. "Gene fusion vectors based on Staphylococcal Protein A" (1983) *Gene* **23**, 369-378.
2. Nilsson, B., Uhlén, M., Josephson, S., Gatenbeck, S. & Philipson, L. "An improved positive selection vector constructed by oligonucleotide mediated mutagenesis" (1983) *Nucleic Acids Research* **11**, 8019-8030.
3. Uhlén, M., Guss, B., Nilsson, B., Gatenbeck, S., Philipson, L. & Lindberg, M. "Complete sequence of Staphylococcal Protein A-A gene evolved through multiple duplications" (1984) *J. Biol. Chem.* **259**, 1695-1702.
4. Guss, B., Uhlén, M., Nilsson, B., Lindberg, M., Sjöquist, J. & Sjö Dahl, J. "Region X, the cell wall attachment part of Staphylococcal Protein A" (1984) *Eur. J. Biochem.* **138**, 413-420.
5. Uhlén, M., Guss, B., Nilsson, B., Götz, F. & Lindberg, M. "Expression of the cloned Staphylococcal gene encoding Protein A in *Staphylococcus aureus* and coagulase negative *Staphylococci*" (1984) *J. Bacteriol.* **159**, 713-719.
6. Nilsson, B., Holmgren, E., Josephson, S., Gatenbeck, S. & Uhlén, M. "Efficient secretion and purification of human insulin-like growth factor I with a gene fusion vector in *Staphylococci*" (1985) *Nucleic Acids Research* **13**, 1151-1162.
7. Olsson, A., Hagström, T., Nilsson, B., Uhlén, M & Gatenbeck, S. "Molecular cloning of the *Bacillus sphaericus* penicillin V amidase gene and its expression in *Escherichia coli* and *Bacillus subtilis*" (1985) *Appl. Env. Microbiol.* **49**, 1084-1092.
8. Nilsson, B., Abrahmsén, L. & Uhlén, M. "Immobilization and purification of enzymes with Staphylococcal Protein A gene fusion vectors" (1985) *EMBO J.* **4**, 1075-1081.
9. Uhlén, M., Nilsson, B., Holmgren, E., Josephson, S., Guss, B. & Lindberg, M. "Expression of foreign genes in *Staphylococcus aureus*" In:

Staphylococci and Staphylococcal Infections (ed. J. Jeljaszewicz), Gustav Fischer Verlag, Stuttgart, 577-582 (1985)

10. Lindberg, M., Guss, B., Nilsson, B., Götz, F. & Uhlén, M. "Expression of the cloned gene for Staphylococcus Protein A" *In: Staphylococci and Staphylococcal Infections* (ed. J. Jeljaszewicz), Gustav Fischer Verlag, Stuttgart, 583-588 (1985)
11. Abrahmsén, L., Moks, T., Nilsson, B., Hellman, U. & Uhlén, M. "Analysis of the signals for secretion in the Staphylococcal Protein A gene" (1985) *EMBO J.* **4**, 3901-3906.
12. Moks, T., Abrahmsén, L., Nilsson, B., Hellman, U., Sjöquist, J. & Uhlén, M. "Staphylococcal Protein A consists of five IgG-binding domains" (1986) *Eur. J. Biochem.* **14**, 7487-7500.
13. Abrahmsén, L., Moks, T., Nilsson, B. & Uhlén, M. "Secretion of heterologous gene products to the culture medium of *Escherichia coli*" (1986) *Nucleic Acids Research* **14**, 7487-7500.
14. Löwenadler, B., Nilsson, B., Abrahmsén, L., Moks, T., Ljungqvist, L., Holmgren, E., Paleus, S., Josephson, S., Philipson, L. & Uhlén, M. "Production of specific antibodies against Protein A fusion proteins" (1986) *EMBO J.* **5**, 2393-2398.
15. Nilsson, B., Moks, T., Jansson, B., Abrahmsén, L., Elmlblad, A., Holmgren, E., Henrichson, C., Jones, T.A. & Uhlén, M. "A synthetic IgG-binding domain based on Staphylococcal Protein A" (1987) *Protein Engineering* **1**, 107-113.
16. Moks, T., Abrahmsén, L., Österlöf, B., Josephson, S., Östling, M., Enfors, S.-O., Persson, I., Nilsson, B. & Uhlén, M. "Large scale affinity purification of a human peptide hormone recovered from the culture medium of *Escherichia coli*" (1987) *Bio/Technology* **5**, 379-382.
17. Moks, T., Abrahmsén, L., Holmgren, E., Bilich, M., Olsson, A., Uhlén, M., Pohl, G., Sterky, C., Hultberg, H., Josephson, S., Holmgren, A., Jörnvall, H., & Nilsson, B. "Expression of human insulin-like growth factor I in bacteria: use of optimized gene fusion vectors to facilitate protein purification" (1987) *Biochemistry* **26**, 5239-5244.
18. Löwenadler, B., Jansson, B., Paleus, S., Holmgren, E., Nilsson, B., Moks, T., Palm, G., Josephson, S., Philipson, L. & Uhlén, M. "A gene fusion system for generating antibodies against short peptides" (1987) *Gene* **58**, 87-97.
19. Valerie, K., Fronko, G., Long, W., Henderson, E.E., Nilsson, B., Uhlén, M. & de Riel, J.K. "Production and detection of coliphage T4 endonuclease V polyclonal and monoclonal antibodies using Staphylococcal Protein A hybrid proteins" (1987) *Gene* **58**, 99-107.
20. Flock, J.-I., Fröman, G., Jönsson, K., Guss, B., Signäs, C., Nilsson, B., Raucci, G., Höök, M., Wadström, T. & Lindberg, M. "Cloning and expression of the gene for a fibronectin-binding protein from *Staphylococcus aureus*" (1987) *EMBO J.* **8**, 2351-2357.
21. Olsson, A., Eliasson, M., Guss, B., Nilsson, B., Hellman, U., Lindberg, M. & Uhlén, M. "Structure and evolution of the repetitive gene encoding Streptococcal Protein G" (1987) *Eur. J. Biochem.* **168**, 319-324.
22. Handl, C., Rönnberg, B., Nilsson, B., Olsson, E. & Flock, J.-I. "Enzyme-linked immunosorbent assay for *Escherichia coli* heat stable enterotoxin type II (ST<sub>II</sub>)" (1988) *J. Clin. Microbiol.* **26**, 1555-1560.
23. Ljungqvist, C., Breitholz, A, Brink-Nilsson, H., Moks, T., Uhlén, M. & Nilsson, B. "Immobilization and affinity purification of recombinant

- proteins using histidine peptide fusions" *Eur. J. Biochem.* (1989) **186**, 563-569.
24. Carter, P., Nilsson, B., Burnier, J. P., Burdick, D. & Wells, J. A. "Engineering Subtilisin BPN' for site-specific proteolysis" (1989) *Proteins: Structure, Function and Genetics* **6**, 240-248.
  25. Hammarberg, B., Moks, T., Elmlblad, A., Holmgren, E., Tally, M., Nilsson, B., Josephson, S. & Uhlén, M. "Differential degradation of human insulin-like growth factor II in *Escherichia coli* and *Staphylococcus aureus*" (1990) *J. Biotechnology* **14**, 423-438.
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  27. Jansson, B., Palmcratz, C., Uhlén, M. & Nilsson, B. "A dual-affinity gene fusion system to express small recombinant proteins in a soluble form: expression and characterization of protein A deletion mutants" (1990) *Protein Engineering* **2**, 555-561.
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  33. Köhler, K., Ljungquist, C., Kondo, A., Veide, A. & Nilsson, B. "Engineering proteins to enhance their partition coefficient in aqueous two-phase systems" (1991) *Bio/Technology* **9**, 642-646.
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  35. Nilsson, B. & Anderson, S. "Proper and improper folding of proteins in the cellular environment" (1991) *Annual Reviews in Microbiology* **45**, 607-635.
  36. Hober, S., Forsberg, G., Palm, G., Hartmanis, M. & Nilsson, B. "Disulfide exchange folding of insulin-like growth factor I" (1992) *Biochemistry* **31**, 1749-1756
  37. Rondahl, H., Nilsson, B. & Holmgren, E. "Fusions to the 5' end of a gene encoding a two-domain analogue of Staphylococcal Protein A" (1992) *J. Biotechnology* **25**, 269-287



38. Nilsson, B., Forsberg, G., Moks, T., Hartmanis, M. & Uhlén, M. "Fusion proteins in biotechnology and structural biology" (1992) *Curr. Opinion in Struct. Biol.* **2**, 569-575.
39. Uhlén, M., Forsberg, G., Moks, T., Hartmanis, M. & Nilsson, B. "Fusion proteins in biotechnology" (1992) *Curr. Opinion in Biotechn.* **3**, 363-369.
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43. Ljungberg, U. K., Jansson, B., Niss, U., Nilsson, R. & Nilsson, B. "The molecular interaction between different domains of staphylococcal protein A and human polyclonal IgG, IgA, IgM and F(ab')<sub>2</sub>: Separation of affinity from specificity" (1993) *Mol. Immunol.* **30**, 1279-1285.
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45. Hober, S., Hansson, A., Uhlén, M. & Nilsson, B. "Folding of insulin-like growth factor I is thermodynamically controlled by insulin-like growth factor binding protein" (1994) Accelerated Publication *Biochemistry* **33**, 6758-6761.
46. Karlsson, R., Jendeberg, L., Nilsson, B., Nilsson, J. & Nygren, P.-Å. "Direct and competitive kinetic analysis of the interaction between human IgG1 and a one domain analogue of Protein A" (1995) *J. Immunol. Methods* **183**, 43-49.
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48. Nord, K., Nilsson, J., Nilsson, B., Uhlén, M. & Nygren, P.-Å. "A combinatorial library of  $\alpha$ -helical bacterial receptor domain" (1995) *Prot. Eng.* **8**, 601-608.
49. Nilsson, B. "Antibody engineering" (1995) *Curr. Opinion in Struct. Biol.* **5**, 450-456.
50. Nilsson, B. & DeGrado, W. F. "Engineering and design" (1995) *Curr. Opinion in Struct. Biol.* **5**, 441-442.
51. Jendeberg, L., Tashiro, M., Tejero, R., Lyons, B. A., Uhlén, M., Montelione, G. T. & Nilsson, B. "The mechanism of binding Staphylococcal Protein A to Immunoglobulin G does not involve helix unwinding" (1995) *Biochemistry* **35**, 22-31.
52. Jansson, M., Li, Y. - C., Jendeberg, L., Anderson, S., Montelione, G. & Nilsson, B. "High level production of uniformly <sup>15</sup>N- and <sup>13</sup>C-enriched fusion proteins in *Escherichia coli*" (1996) *J. Biomol. NMR* **7**, 131-141.
53. Kraulis, P. J., Jonasson, P., Nygren, P.-Å., Uhlén, M., Jendeberg, L., Nilsson, B. & Kördel, J. "The serum albumin-binding domain of

- Streptococcal Protein G is a three-helical bundle: a heteronuclear NMR study" (1996) *FEBS Letter* **378**, 190-194.
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  55. Hober, S., Uhlén, M. & Nilsson, B. "Disulfide exchange folding of disulfide mutants of insulin-like growth factor I *in vitro*" (1997) *Biochemistry* **36**, 4616-4622.
  56. Jansson, M., Uhlén, M. & Nilsson, B. "Structural changes in insulin-like growth factor (IGF) I mutant proteins affecting binding kinetic rates to IGF binding protein 1 and IGF-I receptor" (1997) *Biochemistry* **36**, 4108-4117.
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  58. DeGrado, W. F. & Nilsson, B. "Engineering and design" (1997) *Curr. Opin. Struct. Biol.* **7**, 455-456
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  61. Jendeberg, L., Nilsson, P., Larsson, A., Denker, P., Uhlén, M., Nilsson, B. & Nygren, P.-Å. "Engineering of Fc1 and Fc3 of human immunoglobulin G to analyse subclass specificity for staphylococcal protein A" (1997) *J. Immunol. Methods* **201**, 25-34
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  63. Hober, S., Lundström Ljung, J., Uhlén, M. & Nilsson, B. "Insulin-like growth factors I and II are unable to form and maintain their native disulfides under *in vivo* redox conditions" (1999) *FEBS Lett* **443**, 271-276

#### **PH.D. THESIS**

Nilsson, B. "Fusions to the gene encoding Staphylococcal Protein A" (1986) Royal Institute of Technology, Stockholm, ISBN 91-7170-997-5.

#### **PATENT APPLICATIONS**

- P1. Olsson, A., Nilsson, B., Uhlén, M. & Gatenbeck, S. "Recombinant DNA molecule, transformed microorganism and process for producing penicillin V amidase" Swedish patent application 8403929-6 (in addition applications in USA, Japan and Germany).
- P2. Abrahmsén, L., Moks, T., Nilsson, B. & Uhlén, M. "A method to export gene products to the growth medium of Gram negative bacteria" Swedish patent application 8505921-0 (in addition applications in USA, Japan and Europa).

- P3. Abrahmsén, L., Moks, T., Nilsson, B. & Uhlén, M. "Construction of an IgG-binding protein to facilitate downstream processing using protein engineering" Swedish patent application 8505922-8 (in addition applications in USA, Japan and Europa).
- P4. Nilsson, B., Uhlén, M., Löwenadler, B. & Holmgren, E. "Preparation of fused proteins, antibodies and process thereof" Swedish patent application 8601940-3 (in addition applications in USA, Japan and Europa).
- P5. Enfors, S.-E., Köhler, K., Ljungquist, C., Nilsson, B. & Veide, A. "A method for isolating and purifying peptides and proteins" Swedish patent application 9003534-6 (in addition applications in USA, Japan and Europa).
- P6. Sirtori, C., Franceschi, G., Abrahmsén, L., Holmgren, E., Lake, M., Lind, P. & Nilsson, B. "Apolipoprotein" Swedish patent application 9103701-0 (in addition applications in USA, Japan and Europa).
- P7. Hober, S. & Nilsson, B. "Use of Insulin-like Growth Factor (IGF) Binding Protein to promote correct folding of IGF-I" Swedish patent application 9303784-4 (in addition applications in USA, Japan and Europa).
- P8. Nilsson, B., Nygren, P.-Å. & Uhlén, M. "Bacterial Receptor Structures" International patent application PCT/SE 95/00034

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