

CURRICULUM VITAE: Excerpts relevant for the present application**Ingemar Terje Traavik**

Date of Birth: December 5, 1943
Place of Birth: Oslo, Norway
Nationality: Norwegian

Degrees:

1969 Norwegian School of Veterinary Medicine, DVM
 1979 University of Tromsø, Dr. philos.

Professional Employment:

2003- Professor II in gene ecology, Faculty of Medicine, University of Tromsø
 2001- Scientific Director, GENOK-Norwegian Institute of Gene Ecology
 1983-2003 University of Tromsø, Institute of Medical Biology, Department of Virology: Professor and Head of Department
 1977-2003 University Clinic and Regional Hospital of Tromsø, Department of Clinical Microbiology: Consultant Virologist
 1977-1983 University of Tromsø, Institute of Medical Biology, Department of Microbiology: Associate Professor (Initiated virology research and teaching programs from scratch).
 1975-1977 National Institute of Public Health, Oslo, Department of Virology: Senior Scientific Officer
 1970-1975 National Institute of Public Health, Oslo, Department of Virology: Scientific Officer
 1969-1970 Municipality of Vega, Norway: Practicing Veterinary Surgeon

Brief summary of research interests

- Member of research group investigating antigenic properties of HBV (hepatitis B virus), National Institute of Health, 1971-75
- Head and supervisor of research group on the ecology and biological characteristics of Norwegian arbo- and hantaviruses, National Institute of Health and University of Tromsø, 1973-86.
- Head and supervisor of research group on the molecular biology and epidemiology of oncogenic human polyomaviruses 1983- 2004 (Erna and Olav Aakre Foundation Prize for Excellent Cancer Research 1992)
- Head and supervisor of research group on environmental effects of genetically modified virus vaccines, 1994-present.
- Founding Director, GenØk-Norwegian Institute of Gene Ecology, 1997-
- Project manager for various research groups within gene ecology, included bioethics 2002-

Prizes and Nominations.

- Awarded "The Erna and Olav Aakre Foundation Prize for Excellent Cancer Research", 1992
- Nominee, Research Council of Norway National Prize in Biomedical Sciences, 1992

Grants and Honors:

Grants Recipient, Norwegian Research Council 1978-; Grants Recipient, Norwegian Cancer Society 1984-2003; Grants Recipient, Erna and Olav Aakre Foundation for Fighting Cancer 1986-2000 ; Norwegian Research Council Fellowship to visit Walter Reed Institute, Washington DC 1976; Norwegian Ministry of Foreign Affairs Fellowship to visit D.I. Ivanovsky Institute of Virology, Moscow 1978; Norwegian Research Council Fellowship, Visiting Professor, Oxford University 1983-1984; Norwegian Research Council Fellowship, Visiting Professor, University of California, San Diego 1988-1989; Norwegian Research Council Fellowship, Visiting professor, University of California, Irvine, 1994-1995 ; Visiting professor, University of Canterbury, Christchurch, New Zealand, 2004-2005

Professional assignments

High number of national and international assignments. A few of the most relevant to this application are listed:

Chairman of the Board, Institute of Medical Biology, 1981-83; Vice-Dean, School of Medicine, University of Tromsø, 1981-83; Member of the Steering Committee for the project: "The Organization of Biotechnology in Northern Norway", 1985-86; Member of Public Relations Steering Committee for the Project "The University Towards Year 2000", 1986-87; Member, Board of Civil Engineering Studies, Univ. of Tromsø, 1985-88; University Board Member, University of Tromsø, 1989-93; Member, Steering Committee for the project "Reorganizing the University of Tromsø", 1992-95.; Member, Expert Committee on environmental effects of biotechnology, Directorate of Nature Management, 1990-; Chairman of the Board for the National Research Program "Environmental Effects of Biotechnology", Research Council of Norway, 1991-94; Member of the Norwegian Biotechnology Advisory Board, 1993-95; Co-founder and Scientific Council chairman, GENØK-Norwegian Institute of Gene Ecology, 1997; -Scientific advisor, Third World Network,

Penang, Malaysia, 1998-; Co-founder and first Program Director "University of Tromsø Program in Molecular and Clinical Aspects of Cancer", 1999-2001;
 Member Norwegian Royal Commission on Health Effects of Genetically Modified Food ("Walløe-komiteen"; Reported as NOU 2000:29). ;Member of the Board, New Zealand Institute of Gene Ecology (NZIGE), 2001- ; Member "Roster of Experts on GE/GMO Risk Assessment", United Nations Environment Program (UNEP), 2002-;
 Member of the Steering Committee for the GENØK/NZIGE/UNEP enterprise "GE/GMO Biosafety Forecast Service", 2003-;Chairman of the Steering Committee, UNEP (United Nations Environment Program)/GenØk "GE/GMO Biosafety Capacity Building Program", 2004-; Editor-in-Chief for the textbook "Biosafety First", 2005-2007 ; EMEA (European Medicines Agency): National Contact for Marketing Applications, 2007- ; Member Norwegian Biotechnology Advisory Board 2008-; Chairperson Cooperation Committee GenØk-University of Tromsø 2008-

Organizer of scientific conferences and meetings

Chairman of the organizing committees for 8 international conferences/workshops and a number of national/local events.

Theater

Co-author and actor in the stage play "Gene reply", Hålogaland Regional Theater, 1993-94

Invited lectures :

High number at International Conferences, Universities, Research institutions, Regulatory authorities on all continents.

Scientific supervision:

Master of Science students. 23 candidates graduated 1987- 2005.; **Doctoral students (Dr. med., Dr. philos., Dr. scient.)** 15 candidates graduated 1987-2007. 3 students under supervision at the moment.

Media and public press.

I have given numerous interviews and other contributions to newspapers, radio and TV in Norway, Scandinavia, Switzerland, Canada, India, Cameroon, Malaysia, Philippines, New Zealand, UK and Australia. The number of contributions has been more than 250 in the years from 1997. Contributor to the documentary film "The Risk of Science" (Film-makers Gabriela Neuhaus and Angelo Scudeletti in OffRoad Reports GMBH, Bern, Switzerland), which has been shown on a number of international TV channels, and won prizes at festivals in Freiburg and Parma in 2001. Contributor to the documentary film "Life Running Out Of Control" by Denkmal Productions, Germany, released in late spring-2004. It has been broadcasted on national German, US and other TV channels, and won a number of prizes.

PUBLICATIONS BY TERJE TRAAVIK 2002-2008 (Excluding meeting abstracts).

- A. Peer-reviewed original research reports in international scientific journals.
- B. Refereed reviews and comments in journals and books
- C. Invited, refereed contributions
- D. Non-refereed monographs, books, reports and other contributions

163. Rinaldo CH, Myhre MR, Alstad H, Nilsen Ø and Traavik T. BK virus transiently transforms and persistently infects cultured human osteosarcoma cells. **Virus Research** **93**: 181-187, 2003. **A**
164. Hansen, H., Okeke, M.I., Nilssen, Ø., Traavik, T. 2004. Recombinant viruses obtained from co-infection in vitro with a live vaccinia-vectored influenza vaccine and a naturally occurring cowpox virus display different plaque phenotypes and loss of the transgene. **Vaccine** **23**: 499-506 **A**
165. Heinemann, J.A., Sparrow A.D., Traavik, T. 2004. Is confidence in the monitoring of GE foods justified? **Trends in Biotechnology** **22**(7), 331-336 **A**
166. Heinemann, J. A., Traavik T. 2004. Problems in monitoring horizontal gene transfer in field trials of transgenic plants. **Nature Biotechnology** **22**:1105-1109 **A**
167. Heinemann JA, Traavik T. 2004. Monitoring horizontal gene transfer. Reply. **Nature Biotechnology** **22**: 1349-1350 **B**
168. Weli SC, Traavik T, Tryland M, Coucheron DH, Nilssen O. 2004. Analysis and comparison of the 4b core protein gene of avipoxviruses from wild birds: Evidence for interspecies spatial phylogenetic variation. **Arch Virol** **149**: 2035-2046 **A**
169. Weli SC, Okeke MI, Tryland M, Nilssen O, Traavik T. 2004. Characterization of avipoxviruses from wild birds in Norway. **Can J Vet Res.** **68**: 140-145 **A**
170. Weli SC, Nilssen O, Traavik T. 2004. Morphogenesis of fowlpoxvirus in a baby hamster kidney cell line. **Med Electron Microscop**, **37**: 225-235 **A**
171. Weli SC, Nilssen O, Traavik T. 2005. Avipoxvirus multiplication in a mammalian cell line. **Virus Research** **109**: 39-49 **A**

172. **Rinaldo CH, Hansen H, Traavik T.** 2005. Human endothelial cells allow passage of an archetypal BK virus (BKV) strain—a tool for cultivation and functional studies of natural BKV strains? **Arch Virol**, **150**: 1449-1458 **A**
173. **Nordgaard, L., Traavik, T and Nielsen, K. M.** 2005. Nucleic acid isolation from ecological samples – vertebrate gut flora. **Methods in Enzymology**, **395**: 38-48 **A**
174. **Traavik T, Bøhn T.** 2005. Genenes detronisering – ouverturen til noe nytt? **Cogito 10**: 5-12 (ISBN 82-7873-112-8; in Norwegian) **D**
175. **Traavik T, Bøhn T.** 2005. Tårnfallene 11.02.2001: Ouverturen til noe nytt? Preface, pp 9-22, in Skaftnesmo T: Genparadigmets fall. Sammenbrudet av det sentrale dogmet. **Antropos, Oslo (ISBN 82-7940-055-9; in Norwegian)**
176. **Myhre, MR, Fenton KA, Eggert J, Nielsen KM, Traavik T.** 2006. The 35 S CaMV plant virus promoter is active in human enterocyte-like cells. **Eur Food Res Tech** **222**:185-193 **A**
177. **Okeke MI, Nilssen O, Traavik T.** 2006. Modified vaccinia virus Ankara multiplies in rat IEC-6 cells and limited production of mature virions occurs in other mammalian cell lines. **J Gen Virol**. **87**: 21-7. **A**
178. **Traavik T, Heinemann JA.** 2005. Agro-gentechnik und unterbliebene Gesundheitsforschung. In: Grössler M and Faissner K (Eds): **Gefahr Gentechnik**, pp 245-253, **Concord Verlag, Mariahof, Austria, 2005 (ISBN 3-9501887-1-1)** **B**
179. **Bøhn T, Traavik T.** 2006. Høyt spill med genmodifisering. Kronikk, **Dagbladet 31.03.2006 (In Norwegian)** **D**
180. **Traavik T.** 2006. Genmodifisering, helse og miljø – risikospørsmål som mangler gode svar. Pp 51-64 in **Hope B (Ed): Matproduksjon og Handel – Fristelse og Kunnskap. Landbruksforlaget og Kontur Tidsskrift, Oslo (ISBN 82-529-2856-0; In Norwegian)** **D**
181. **Noer Lie SA, Bøhn T, Traavik T.** 2006. Er genetikk teknologi? Kronikk, **Dagbladet, 10. juli (In Norwegian).** **D**
182. **Traavik T.** 2006. Environmental Risk assessment of an Adenovirus-vectored Cancer Gene Therapy Strategy. Report to the Directorate of Nature Management, Trondheim, Norway. **D**
183. **Traavik T.** 2006. Clinical Trial of a Genetically Modified Ad-5-Vectored HIV-1 Vaccine. Report to African Centre of Biosafety, Johannesburg, South Africa. **D**
184. **Traavik T and Bøhn T.** 2006. Tårnfallene 11.2.2001: Ouverturen til noe nytt? **Libra 34, 1, 10-17 (In Norwegian)** **D**
185. **Traavik T.** 2006. Risk Evaluation of an Ad-5 vectored HIV Vaccine. Report to NISIR (National Institute of Scientific and Industrial Research), Lusaka, Zambia. **D**
186. **Quist D and Traavik T.** 2006. Safety assessment of GMOs: human health risks and research needs. Pp 11-21 in: Xue Dayan (Chief Editor): Environmental Impacts and Safety Regulations of Genetically Modified Organisms. China Environmental Science Press, Nanjing, China (ISBN 7-80209-392-9; In Chinese)
187. **Devlin, R., Traavik, T. and Colombo, L.** (2006). II. Applicability of gene transfer into the germinal line in fish culture. In: “Performance improvements by polyploidisation, gene transfer and DNA vaccination in aquaculture”. Colombo, L., Crosetti, D. and Svaasand T. (eds). GENIMPACT project: Evaluation of genetic impact of aquaculture activities on native populations. A European network. WP1 workshop “Genetics of domestication, breeding and enhancement of performance of fish and shellfish”, Viterbo, Italy, 12-17th June, 2006, 12 p. <http://genimpact.imr.no/> **C**
188. **Nerland, A., Traavik, T. and Colombo, L.** (2006). III. DNA vaccination in fish culture. In: “Performance improvements by polyploidisation, gene transfer and DNA vaccination in aquaculture”. Colombo, L., Crosetti, D. and Svaasand T. (eds). GENIMPACT project: Evaluation of genetic impact of aquaculture activities on native populations. A European network. WP1 workshop “Genetics of domestication, breeding and enhancement of performance of fish and shellfish”, Viterbo, Italy, 12-17th June, 2006, 6 p. <http://genimpact.imr.no/> **C**
189. **Traavik T and Heinemann JA.** 2007. Genetic Engineering and Omitted Health Research: Still No Answers to Ageing Questions. **TWN Biotechnology & Biosafety Series 7 (ISBN 978-983-2729-76-1)** **D**
190. **Nordgård L, Nguyen T, Midtvedt T, Benno Y, Traavik T and Nielsen KM.** 2007. Lack of detectable uptake of DNA by bacterial gut isolates grown *in vitro* and by *Acinetobacter baylyi* colonizing rodents *in situ*. **Environmental Biosafety Research** **6**:149–160 **A**
191. **Myhr AI and Traavik T.** 2007. Poxvirus vectored vaccines call for application of the Precautionary Principle. **Journal of Risk Research** **10**: 503-525 **A**
192. **Lim Li Ching and Terje Traavik (Editors in Chief).** 2007. Biosafety First: Holistic Approaches to Risk and Uncertainty in Genetic Engineering and Genetically Modified Organisms. 612 pages. Tapir Academic Press, Trondheim, Norway (ISBN 978-82-519-2113-8) **C**

- 193. Lim LC and Traavik T.** 2007. Introduction from the Editors in Chief. Pages 19-21 in: Lim Li Ching and Terje Traavik (Editors in Chief). 2007. *Biosafety First: Holistic Approaches to Risk and Uncertainty in Genetic Engineering and Genetically Modified Organisms*. Tapir Academic Press, Trondheim, Norway (ISBN 978-82-519-2113-8) C
- 194. Traavik T and Bøhn T.** 2007. Chapter 1: Life on Earth. Pages 25-40 in: Lim Li Ching and Terje Traavik (Editors in Chief). 2007. *Biosafety First: Holistic Approaches to Risk and Uncertainty in Genetic Engineering and Genetically Modified Organisms*. Tapir Academic Press, Trondheim, Norway (ISBN 978-82-519-2113-8) C
- 195. Quist D, Nielsen KM and Traavik T.** 2007. Chapter 2: Introduction to some basic molecular features of genetic information: From DNA to proteins. Pages 41-48 in: Lim Li Ching and Terje Traavik (Editors in Chief). 2007. *Biosafety First: Holistic Approaches to Risk and Uncertainty in Genetic Engineering and Genetically Modified Organisms*. Tapir Academic Press, Trondheim, Norway (ISBN 978-82-519-2113-8) C
- 196. Quist D, Nielsen KM and Traavik T.** 2007. Chapter 3: The complex and interactive pathway from (trans)genes to proteins. Pages 49-60 in: Lim Li Ching and Terje Traavik (Editors in Chief). 2007. *Biosafety First: Holistic Approaches to Risk and Uncertainty in Genetic Engineering and Genetically Modified Organisms*. Tapir Academic Press, Trondheim, Norway (ISBN 978-82-519-2113-8) C
- 197. Traavik T, Nielsen KM and Quist D.** 2007. Chapter 4: Genetic engineering of Living Cells and Organisms. Pages 65-94 in: Lim Li Ching and Terje Traavik (Editors in Chief). 2007. *Biosafety First: Holistic Approaches to Risk and Uncertainty in Genetic Engineering and Genetically Modified Organisms*. Tapir Academic Press, Trondheim, Norway (ISBN 978-82-519-2113-8) C
- 198. Myhr AI and Traavik T.** 2007. Chapter 7: GE applications and GMO release: the ethical challenges. Pages 123-136 in: Lim Li Ching and Terje Traavik (Editors in Chief). 2007. *Biosafety First: Holistic Approaches to Risk and Uncertainty in Genetic Engineering and Genetically Modified Organisms*. Tapir Academic Press, Trondheim, Norway (ISBN 978-82-519-2113-8) C
- 199. Traavik T, Quist D and Nielsen KM.** 2007. Chapter 8: Genetically engineered cells and organisms: are they substantially equivalent to their unmodified counterparts? Pages 137-152 in: Lim Li Ching and Terje Traavik (Editors in Chief). 2007. *Biosafety First: Holistic Approaches to Risk and Uncertainty in Genetic Engineering and Genetically Modified Organisms*. Tapir Academic Press, Trondheim, Norway (ISBN 978-82-519-2113-8) C
- 200. Traavik T and Heinemann JA.** 2007. Chapter 9: Genetic engineering and omitted health research: still no answers to ageing questions. Pages 153-168 in: Lim Li Ching and Terje Traavik (Editors in Chief). 2007. *Biosafety First: Holistic Approaches to Risk and Uncertainty in Genetic Engineering and Genetically Modified Organisms*. Tapir Academic Press, Trondheim, Norway (ISBN 978-82-519-2113-8) C
- 201. Myhr AI and Traavik T.** 2007. Risikoaspekter og nødvendigheten av en føre-var holdning. Sidene 3-9, GMO-hefte utgitt av Norsk Bonde- og Småbrukarlag, Oslo (In Norwegian). D
- 202. Traavik T.** 2007. Background document on risk assessment of genetically modified (GM) viruses for the management of animal populations. Prepared for The Norway Canada Workshop on Risk Assessment for Emerging Applications of LMOs. June 4-6, 2007, Montreal, Canada D
- 203. Tonheim TC, Myhr AM, Traavik T, Bøgwald J and Dalmo RA.** 2008. Reporter gene expression in Atlantic salmon (*Salmo salar* L.) after intramuscular injection of a 35S CaMV promoter driven plasmid. Submitted A
- 204. Heinemann JA and Traavik T.** GM soybeans—revisiting a controversial format. *Nature Biotechnology* **25**: 1355-1356, 2007 D
- 205. Traavik T.** 2008. Biosikkerhet viktigst (Biosafety is most important). Aftenposten, 28. januar (In Norwegian). D
- 206. Bøhn T, Primicerio R, Hessen DO and Traavik T.** 2008. Reduced fitness of *Daphnia magna* fed Bt-transgenic maize. *Archives of Environmental Contamination and Toxicology*, DOI 10.1007/s00244-008-9150-5, SpringerLink Date March 18, 2008 A
- 207. Okeke MI, Adekoya OA, Traavik T and Nilssen Ø.** 2008. Comparative sequence and structure analysis of A-type inclusion body (ATI) and p4c proteins of Orthopoxviruses that produce typical and atypical ATI phenotypes. Submitted A
- 208. Traavik T.** 2008. Genmodifisering på Tellus: Men helheten greide de ikke å fange (Genetic engineering on Tellus: But they could not catch the Whole). Page 158-167 in Stein P. Aashem and Marianne Reusch (Editors): *Vandrer med Verdenskart. Festskrift til Øystein Dahle 70 år*. Flux Forlag, Oslo, 2008 (ISBN 978-82-92773-22-2) D
- 209. Okeke MI, Nilssen Ø and Traavik T.** 2008 Biological properties of recombinant viruses obtained from co-infection in vitro of Modified vaccinia virus Ankara (MVA) vectored influenza vaccine and wild type cowpox virus. Submitted A
- 210. Nordgård L, Grønsberg IM, Hegge B, Fenton K, Nielsen KM, Bardocz S, Pusztai A and Traavik T.** 2008. An examination of the fate of feed-derived DNA in various tissue samples of actively growing rats, pregnant rats and their foeti. Submitted A