Curriculum Vitae - Lars Kristian Hansen

Personal data:

Born in
Haugesund, Norway, December 16 1944
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Protein Crystallography Group, Department of Chemistry,
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Education:

1963
Eksamen artium (Natural sciences), Haugesund Gymnas, Norway
1971
Cand. real (master degree) in Chemistry, University of Bergen, Norway
1977
"Teaching certificate", College of Education, University of Tromsø, Norway

Languages spoken:

Norwegian
Mothertongue
English
Excellent reading, writing and comprehension
German
Fair reading and comprehension; basic writing
French
Basic reading, writing and comprehension

Academic career:

01.01.73 - 31.12.73
Research assistant (NAVF/prof. Asbjørn I. Hordvik), University of Bergen, Norway
01.01.74 - 01.03.75
Research assistant, Department of Chemistry, IMR, University of Tromsø, Norway
01.03.75 - 31.03.80
Research fellow, Department of Chemistry, IMR, University of Tromsø, Norway
01.01.79 - 31.07.79
Assistant professor, Department of Chemistry, IMR, University of Tromsø, Norway
01.04.80 - 31.12.85
Associate professor (forsker/NAVF), Department of Chemistry, IMR, University of Tromsø, Norway. Project: "Laboratorium for Proteinkrystallografi"

01.01.86 - 01.03.89

Associate professor (forsker/NAVF), Department of Chemistry, IMR, University of Tromsø, Norway. Project: "Determination of the Molecular Structure of Phospholipase C at a resolution of 2.8Å and higher"

01.03.89 - 01.10.92

Professor (forskningsveileder/NAVF), Department of Chemistry, IMR, University of Tromsø, Norway. R&D-funds for the continued development of "Laboratorium for Proteinkrystallografi at IMR"

01.10.92 - 01.01.93

Associate professor (physical chemistry), Department of Chemistry, IMR, University of Tromsø, Norway

01.01.93 -

Professor (physical chemistry), Department of Chemistry, IMR, University of Tromsø, Norway

Teaching experience:

Teacher (elementary school), schoolyear 1963/64, Bokn Kommune, Norway.
Teaching assistant/seminar leader, general chemistry and binding theory, 1969-1972, Department of Chemistry, University of Bergen, Norway.
At the Department of Chemistry, University of Tromsø I have participated in teaching the following cources in the period 1975 - 1979 as lab.assistant/ seminar leader etc.: Physical Chemistry I and II, Organic Chemistry, X-ray Crystallography.
From 1992-1995 I have been responsible for the teaching of the cources in Physical Chemistry (K-140/Phys.Chem I and K-240/Phys.Chem II) and in 1993 spring/summer/autumn K-340 (X-ray Crystallography). 1996- K-240. 1997-1999: Responible for labs. in K-100 (autumn) and K-140 (spring). Autumn 1999: K-240 – lectures + lab. 2000-2002 - exercises K-100. Spring 2001 – lab K-140. Autumn 2002 : K-240. Spring 2003/2004 – lab K-140 + exercises K-100. Autumn 2003 : Teaching part of KJE-1001.

Research areas/experience:

Structure determination (X-ray) of organic sulfur compounds (trithiapentalenes and derivatives) and sugars; in cooperation with prof. Asbjørn I. Hordvik, Bergen/Tromsø.
Structure determination (X-ray) of molecules with pharmaceutical interest in cooperation with prof. E. Hough, Tromsø and prof. S. Dahl, Tromsø (phenothiazines) and prof. A.J. Aasen, Tromsø/Oslo (determination of absolute configurations of small drugs).
Structures of metallo-organic complexes (C. Reynolds and Z. Dauter, York, England) and (J. Sieler, Leipzig, Germany).
Diffractometry - development of step-scan methods for the CAD4 diffractometer (with B. Birknes, Tromsø/Bergen).
Since May 1975 I have been responsible for the CAD4 diffractometer in our lab. This includes maintenance plus supervision/teaching of students and visiting scientists etc.
Since 1979 my main research field has been in proteincrystallography.

In 1979 I worked (together with K. Watenpaugh, Univ. of Seattle, USA and B. Birknes, Bergen) with the implementation/adaption of computer software (for a Cyber computer) for the datareduction of CAD4-data collected on proteins. Since then I have been involved in the installation of crystallographic software for solving structures (packages for both small molecule crystallography and proteincrystallography).
Since 1983 responsible for our DEC VAX-computers and VAX/VMS software.

1971 -

Supervisor for ca 25 graduate students in X-ray crystallography, Bergen and Tromsø.
Supervisor PhD-thesis Sissel Hansen "Crystallographic and Molecular Studies of Substrate Binding in Phospholipase C from *Bacillus cereus*", Univ. of Tromsø 1993.
Supervisor PhD-thesis Eldbjørg S. Heimstad "Structural and dynamical comparison of two homologous enzymes - Exploring the protein dynamics of salmon and bovine trypsin with molecular dynamics simulations", Univ. of Tromsø 1996.

Research stays, abroad:

Summer 1974

2 months stay at Oregon State University, Corvallis, OR, USA with professor K. Hedberg learning the technique of solving molecular structures by the electron diffraction method.

1982 - 1988

6 short stays (each of ca. 1 month duration) at the Protein Crystallography Group, University of York, York, England (with Drs. Guy and Eleanor Dodson).

December 1984

1 month stay at Biomedicum, University of Uppsala, Uppsala, Sweden with professor B. Strandbergs group.

1995 -1996

Sabbatical year (autumn-95/spring-96) at the University of Tennessee, College of Pharmacy, Memphis, TN, USA at the group of professor Willam P. Purcell. Project: Molecular modeling - docking studies of ophthalmological drugs using the program SYBYL (Tripos). Structure/activity studies (QSAR) to characterize promising candidates for synthetic work. Done in collaboration with the pharmaceutical firm Alcon Laboratories, Inc., Forth Worth, TX, USA.

2000-2001

Sabbatical year (autumn-00/spring-01) at the University of Tromsø and visits to Professor Patrick McArdle, National University of Ireland, Galway, Ireland (autumn-2000) to learn about his program OSCAIL for doing X-ray crystallography using PCs and Windows. The year resulted in more than 10 new solved structures in collaboration with colleagues both locally, in Trondheim, Oslo and abroad.

Administrative experience-academic:

Member (for the research fellow group) of the university council.
Representative (for the research fellow group) in the faculty council.
Representative (for the academic staff) in the faculty council.
Member (for the academic staff) in the faculty IT-council.
Representative for the Department of Chemistry in the faculty budget board.
Head of department (chemistry) 1993 - 1995.
Member National Council in Chemistry 1993 - 1995.
Member of faculty council for teaching and research 1998-
Member/vice-chair Dept. of Chemistry 1997-2001.
Representative (Faculty of Science) council for KVINNFORSK 1997-2003.
Head of department (chemistry) 2002-.

Civil career:

July 1971 - October 1972

Military duty in the Royal Norwegian Navy participating in a working group at the Computer Center, University of Bergen developing a real-time on-line system for the Navy (Sjøforsvarets Forsyningskommando SFK).

Administrative experience:

1979 - 1989

"Spokesman" (tillitsmann) for the Sea Homeguard soldiers; District 522 (SHV 522)
Member (assistant leader) District council Homeguard Troms County (Nestformann arbeidsutvalget Troms HV-distrikt 16)

1985 - 1989

Representative "Congress" for the Norwegian Homeguard from the Troms County (1 representative) - (representant Landsrådet for Heimevernet for HV-distrikt 16)

1983 - 1992

Leader of the University of Tromsø´s Sports Association (Universitetets Bedriftsidrettslag UBIT).

1975-1999 Other administrative positions occasionally:

Member/treasurer of Norwegian Chemical Society – North Norway branch.
Soccer coach/manager (junior level) – Fløya Sportsclub, Tromsø.