

# CURRICULUM VITAE

**Uwe Schneider**

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## EDUCATION

- 2011 **Titular-Professor** at the University of Zürich
- 2006 **Habilitation-Thesis** in the Division of Medical Imaging and Radiation Oncology of the Vetsuisse-Faculty of the University of Zürich
- *Investigations of dose accuracy and secondary cancer risk in the context of proton radiotherapy*
- 1995 **Radiation Protection Officer** for Medical Diagnostics, Nuclear Medicine and Radiation Oncology
- 1991 - 1994 **PhD-thesis** at the Paul Scherrer Institut (PSI), Villigen und der ETH Zürich
- *Thesis No. 10780: Proton radiography: A tool for quality control in proton therapy*
- 1990 - 1994 Certification in **Medical Physics** according to the rules of the Swiss and German Medical Physics societies
- 1984 - 1989 **Diploma (Master) in Physics**
- *Successful completion of a Physics Diploma course*
  - *Diplomawork (Master): On the symmetric baroclinic instability*
- 1974 - 1983 **Abitur** (Gymnasium Selb)
- 1970 - 1974 Elementary School (Dr.-Bogner-Schule Selb)

## EMPLOYMENT

- 2009 - **Chief Medical Physicist** of the Hirslanden Radiotherapie AG
- *Chief of Physics Division*
  - *Responsible for all Hirslanden Radiotherapy Institutes*
  - *Member of the management board*
  - *Research work with the proton therapy group at PSI and the Division of Medical Imaging and Radiation Oncology*

*of the Vetsuisse-Fakultät of the University of Zürich*

- 1995 - 2009     **Chief Medical Physicist** at the City Hospital Triemli Zürich
- o *Chief of the Physics Division*
  - o *Chief of the Radiation Protection Division*
  - o *Research work with the proton therapy group at PSI and the Division of Medical Imaging and Radiation Oncology of the Vetsuisse-Fakultät of the University of Zürich*
- 1994 - 1995     **Post-Doc-position** at the Lehrstuhl für Kernphysik of the Ludwig-Maximilians-Universität München
- o *Research and teaching in Medical Physics*
  - o *Supervision of PhD- and Diploma students*
- 1991 - 1994     **Scientific Assistant** at the Paul Scherrer Institut, Villigen
- o *PhD thesis*
  - o *Working with the proton therapy project*
- 1990 - 1991     **Medical Physicist** at the Institute for Radiotherapy of the General Hospital Bayreuth
- o *Working as Medical Physicist*
  - o *Training as Medical Physicist*
- 1989 - 1990     **Scientific Assistant** at the Institute for Physics at the University of Bayreuth
- o *Research on electroconvection of nematic liquid crystals*
  - o *Research on baroclinic zonal currents in rotating stars*

## **LECTURING**

- 2007 -            Lecturing at the Department of Physics of the ETH Zürich
- 2003 -            Lecturing at the Vetsuisse-Fakultät of the University of Zürich in the course “General radiology and Radiation Physics” and “New trends in radiotherapy”
- 2000 - 2003     Lecturing physics at the MTRA school Zürich
- 1995 - 1996     Lecturing in radiation protection for the Swiss Health Administration (BAG), Bern
- 1994 - 1995     Supervising physics experiments for students at the Ludwig-Maximilians-Universität München
- 1991 - 1994     Lecturing in Medical Physics at the ETH Zürich
- 1990 - 1991     Lecturing physics at the radiographer school Bayreuth
- 1986 - 1989     Lecturing in experimental and theoretical physics at the Institute of Physics of the University Bayreuth

## Grants

Accepted

- **ENSI grant (2019-2022)**  
'Assessing the impact of tumor-size and tumor-dose on the uncertainties of epidemiological studies on radiation induced cancer: An evaluation of low and high dose cancer risk from the combined Japanese A-bomb and radiotherapy cohorts (LOCARI)'  
181'500 CHF
- **SNF grant 320030\_182490/1 (2019-2022)**  
'Challenging traditional radiation dose homogeneity: using normal tissue tolerance for heterogeneous dose escalation and better tumor control'  
144'000 CHF
- **EU: CONFIDENCE-CONCERT : 662287 (2017-2020)**  
'Reducing uncertainties in human and ecosystem radiological risk assessment and management in nuclear emergencies and existing exposure situations, including NORM'  
46'000 CHF
- **Varian Grant 2016-50720-2 (2018-2019)**  
'Integration of whole body dose calculations into Eclipse'  
113'500 CHF
- **Varian Research Grant Nanodosimetry (2016-2020)**  
'Development of a nanodosimeter'  
259'200 CHF
- **Swiss Cancer League: KFS-3249-08-2013-R (2014-2017)**  
'The impact of image guided radiotherapy on second cancer incidence'  
176'000 CHF
- **EU-grant 295970: ANDANTE (2012-2015)**  
'Multidisciplinary evaluation of the cancer risk from neutrons relative to photons using stem cells and the analysis of second malignant neoplasms following paediatric radiation therapy'  
WorkPackage4: Relative carcinogenesis of neutrons on humans using paediatric data  
~100'000 CHF
- **EU-grant 231965: ALLEGRO (2009-2012)**  
'Early and late health risks to normal/healthy tissues from the use of existing and emerging techniques for radiation therapy'  
Task 5.5: Strategy for modelling cancer risk from calculated organ doses.  
~100'000 CHF
- **BAG-grant: KIRO (2007-2009)**  
'Abschätzung der Krebsinduktion durch die radiologische Bildgebung in der Radio-Onkologie'  
150'000 CHF

## Supervision

Dr. med. vet.

Catherine Vaudaux:  
*'Potential for intensity-modulated radiation therapy to permit dose escalation for canine nasal cancer'*

PhD

Roger Hälg (ETH)  
*'Messung der Therapie-, Streu- und Bildgebungs-dosen in der Radio-Onkologie und Modellierung der Krebsinduktion für verschiedene Behandlungsmodalitäten'*

Pascal Hauri (UZH)  
*'Out-of-Field Dose in Photon Radiotherapy: Models and Measurements'*

Fabiano Vasi (UZH)  
*'Single Ion Detector for Radiation Track Structure Studies: Experiment and Monte Carlo simulations'*

MSc

Sairos Safai (ETH)  
*'Dosisverteilung hoch energetischer Photonen in der Umgebung metallischer Implantate'*

Asja Pfaffenberger (Universität Oldenburg)  
*'Phenomenological modelling of second cancer incidence for radiation treatment planning'*

Mihai Marian Tomozeiu (ETH)  
*'Modeling a dose-response relationship for thyroid cancer at radiotherapy dose levels'*

Julia Lonsky (ETH)  
*'The impact of range adjusted ITV on integral dose, cancer risk and normal tissue complication probability in proton therapy and comparison to photon therapy'*

Laura Bischoff (UZH)  
*'Motion correction for ultrahigh field MRI using a field monitoring system'*

Philippe Hasler (UZH)  
*'Scatter in radiotherapy with photon energies of 6 and 15 MeV: Measurements and modeling'*

Stephan Radonic (UZH)

*'Spatial resolution of proton tomography: impact of air gap between patient and detector'*

Kevin Schmidli (UZH)

*'Monte Carlo simulations of cluster size distributions of various radiation qualities and application to track-event theory and treatment planning'*

BSc MAS und  
Semsterarbeiten

Melanie Fischbach (ETH-MAS)

*'Measurement of skin and target dose in post-mastectomy radiotherapy using 4 and 6 MV photon beams'*

David Blumer (ETH-MAS)

*'Commissioning of an In-Vivo Diode Dosimetry System for External Beam Radiotherapy: An Ion Chamber Free Approach'*

Marina Ernst (ETH-MAS)

*'Experimental verification of probabilistic motion compensation for moving RT targets'*

Laura Bischoff (UZH-BSc)

*'Analysis of secondary tumour incidence after radiation therapy of rectum carcinomas'*

Fabiano Vasi (ETH-Semesterarbeit)

*'Determination of the Probability Ratio of One- and Two-Track Events from the Geometrical Structure of the DNA in a Tetranucleosome'*

Nina Röhner (ETH-Semesterarbeit)

*'Analysis of prostate movement from intrafractional Cyberknife imaging'*

Kevin Schmidli (UZH-BSc)

*'Monte Carlo simulations of nanodosimetric parameters for the application in the track-event theory'*

Subas Scheibler (UZH-BSc)

*'Thermoluminescent dosimetry of patient surface dose in radiotherapy and comparison to an analytical model'*

## EDITORIAL ACITIVITIES

- o Editor of the **Zeitschrift für Medizinische Physik**
- o Associate Editor of the journal **Medical Physics**
- o Reviewer for **International Journal of Radiation Oncology Biology Physics**
- o Reviewer for **Physics in Medicine and Biology**
- o Reviewer for **Lancet Oncology**
- o Reviewer for **Radiotherapy and Oncology**
- o Reviewer for **British Journal of Radiology**
- o Reviewer for **Nuclear Instruments and Methods in Physics Research A and B**
- o Reviewer for **Radiation Measurements**
- o Reviewer for **Acta Oncologica**
- o Reviewer for **Advances in Space Research**
- o Reviewer for **Radiation and Environmental Biophysics**
- o Reviewer for **Reports on Progress in Physics**

## CONSULTANT

- o Consultant in the group **Preparatory study of investigations into biological effects of radiation** of the **European Space Agency (ESA)**
- o Member of the **Swiss Commission of Radiation Protection**
- o Member of the **PSI Science Advisory Committee for Proton Therapy** (Paul Scherrer Institute, Villigen)
- o Consultant for the **Fond zur Förderung wissenschaftlicher Forschung** (Austria)
- o Expert Panel for „Metrology for Biological Radiation Effects“ at PTB Braunschweig

## AWARDS

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| 1994 | Appreciation award for radiotherapy of the “Swiss Society for Radiation Biology and Medical Physics“ |
| 1993 | Poster-Price of the “German Society for Medical Physics“   |

## MEMBERSHIPS

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|--------|---|
| 1996 - | American Association for Physicists in Medicine |
| 1995 - | Institute for Physical Sciences in Medicine     |

1994 - Swiss Society for Radiation Biology and Medical Physics  
1990 - German society for Medical Physics