

# Jesper Fonslet

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Date of birth: 25<sup>th</sup> of September 1980

## Key Qualifications

Isotope production and separation, cyclotron targetry, protein conjugation and labeling, radiochemistry, pre-clinical investigations

## Work experience

- 2014-now      PhD student at The Hevesy Laboratory, Nutech DTU-RISØ
- Development of relevant radioisotopes for diagnostics and therapy of *A.fumigatus*
- 2009-now      Responsible physicist at the cyclotron and radiochemistry unit at Herlev Hospital
- Responsible for radiation safety in the radiochemistry labs and the cyclotron
  - Have performed repairs and maintenance on an IBA Cyclone 18/18 cyclotron
  - Development work with solid targets and production of unconventional medical isotopes, especially <sup>123</sup>I, <sup>124</sup>I and <sup>89</sup>Zr
  - High specific activity separation of <sup>89</sup>Zr from <sup>89</sup>Y
  - Have developed and validated methods for GMP production of <sup>123</sup>I for oral administration and written application to LMS
  - GMP production of [<sup>18</sup>F]FDG and [<sup>18</sup>F]NaF on routine basis, including synthesis and QC
- 2006-08      Student job as cyclotron operator at PET- og Cyklotronafdelingen at Rigshospitalet.
- Operator on the Scanditronix MC32 and the CTI Eclipse cyclotrons
  - Simple troubleshooting tasks on both cyclotrons
  - Produced <sup>11</sup>C, <sup>15</sup>O, <sup>18</sup>F, <sup>81</sup>Rb and <sup>211</sup>At
  - Produced <sup>81m</sup>Kr generators for human use

## Education

- 2009-2014      Medical physics program in nuclear medicine
- PhD course: Basic Kinetic Modeling in Molecular Imaging - NRU March 2013
  - PhD course: Functional Imaging - Rigshospitalet / Panum Instituttet - February 2011
  - Course: Udvidet Isotopkursus - Gentofte Hospital - January 2011
  - 2 week stay at University of Wisconsin, Madison learning production and separation of <sup>64</sup>Cu - November 2010
  - 2 week stay at Memorial Sloan-Kettering Cancer Center Madison learning production and separation of <sup>89</sup>Zr - December 2010
  - Course: Radioaktive isotoper og ioniserende stråling, KU - Institut for Molekylær biologi, Københavns Universitet - Februar - April 2010
  - Cyclotron training at IBA, Belgium - March 2009 + June 2010
  - 2 week stay at TRIUMF, Vancouver learning basic target design - November 2009

- Courses: Medical Imaging I + II - European School of Medical Physics, Archamps - September 2009

2004-09 Physics-Biophysics at the Niels Bohr Institute Copenhagen University

- Master's thesis: Amyloid fibrillation kinetics  
Supervisor Mogens Høgh Jensen and Jesper Ferkinghoff-Borg
- Bachelors project: Genetic oscillations  
Supervisor Mogens Høgh Jensen and Sandeep Krishna

2002-04 Physics-Astrophysics at the Niels Bohr Institute Copenhagen University

### Other

2013 Presented work at IBA Users Meeting

2012 Presented work at WTTC14 in Cancun, Mexico

2006-07 Member of Netværksudvalget at the dormitory Østerbrogården.

2004-06 Member of the board in Biofysisk Studenterforening.

2002 Presented work at the symposium "Anomalous Dynamical Processes" at NORDITA.

### Publications

Publications in peer-reviewed journals with citations: 6; h-index=3; total citations=46

1. Novel preparation methods of  $^{52}\text{Mn}$  for immunoPET imaging, *Bioconjugate chemistry*, 2015
2. Bringing radiotracing to titanium-based antineoplastics: Solid phase radiosynthesis, PET and *ex-vivo* evaluation of antitumor agent  $^{45}\text{Ti}(\text{salan})\text{Ti}(\text{dipic})$  - *Journal of medicinal chemistry*, 2015
3. Dry Distillation of Radioiodine from  $\text{TeO}_2$  Targets. *Applied Sciences* 2013, 3, 675-683.
4. Indirect Measurement of Specific Activity of  $^{11}\text{C}\text{CO}_2$  And The Effects Of Target Volume Fractionation; *WTTC14 proceedings*, 2012
5. Stop-and-go kinetics in amyloid fibrillation; *Physical Review E*, vol. 82 2010
6. Pulses and Chaos: Dynamical Response in a Simple Genetic Oscillator; *International Journal of Modern Phys. B*, 2007
7. Optimized procedures for manganese-52: production, separation and radiolabeling; *Applied Radiation and Isotopes*, submitted
8. In vivo radionuclide generators for imaging and therapy, submitted
9. Mn-52 as a PET Neural Tract Tracer; *European Molecular Imaging Meeting 2015*, poster
10. Experimental study of Radiation induced DNA damage by internal Auger electron cascade compared to external  $\gamma$ -rays; *Radiotherapy and Oncology*, poster
11. La-135 for Auger-based therapy: preparation, imaging and emissions; *21st International Symposium on Radiopharmaceutical Sciences*, poster