

Helge Thisgaard  
Department of Clinical Research  
KI, OUH, Research unit of Clinical Physiology and Nuclear Medicine (Odense)  
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## Kvalifikationer

2017 Accreditation as Medical Physics Expert in Nuclear Medicine.  
2012 Accreditation as Medical Physicist in Nuclear Medicine after 3-years post-graduate coursework/training program in nuclear medicine.  
2008 Ph.D. in Medical Physics, Faculty of Life Sciences, University of Copenhagen.  
2004 M.Sc. in Biophysics, Niels Bohr Institute, University of Copenhagen.

## Publications

### **Gastrin-releasing peptide receptor as a theranostic target in breast cancer: a systematic scoping review**

Baun, C., Naghavid-Behzad, M., Hildebrandt, M. G., Gerke, O. & Thisgaard, H., Mar 2024, In: Seminars in Nuclear Medicine. 54, 2, p. 256-269

### **Preclinical evaluation of [<sup>58m</sup>Co]Co-DOTA-PSMA-617 for Auger electron therapy of prostate cancer**

Baun, C., Dam, J. H., Hildebrandt, M. G., Ewald, J. D., Kristensen, B. W., Gammelsrød, V. S., Olsen, B. B. & Thisgaard, H., 1. Nov 2023, In: Scientific Reports. 13, 11 p., 18837.

### **Preparation and Evaluation of [<sup>18F</sup>]AIF-NOTA-NOC for PET Imaging of Neuroendocrine Tumors: Comparison to [<sup>68Ga</sup>]Ga-DOTA/NOTA-NOC**

Dam, J. H., Langkjær, N., Baun, C., Olsen, B. B., Nielsen, A. Y. & Thisgaard, H., 12. Oct 2022, In: Molecules (Basel, Switzerland). 27, 20, 9 p., 6818.

### **Surgical resection of glioblastomas induces pleiotrophin-mediated self-renewal of glioblastoma stem cells in recurrent tumors**

Knudsen, A. M., Halle, B., Cédile, O., Burton, M., Baun, C., Thisgaard, H., Anand, A., Hubert, C., Thomassen, M., Michaelsen, S. R., Olsen, B. B., Dahlrot, R. H., Bjerkvig, R., Lathia, J. D. & Kristensen, B. W., 1. Jul 2022, In: Neuro-Oncology. 24, 7, p. 1074-1087

### **Facile transmetallation of [Sb<sup>III</sup>(DOTA)]<sup>-</sup> renders it unsuitable for medical applications**

Chen, C., Sommer, C., Thisgaard, H., McKee, V. & McKenzie, C. J., 2022, In: RSC Advances. 12, 10, p. 5772-5781

### **Auger electron therapy of glioblastoma using [<sup>125</sup>I]5-iodo-2'-deoxyuridine and concomitant chemotherapy – Evaluation of a potential treatment strategy**

Madsen, K. L., Therkelsen, A. S. N., Langkjær, N., Olsen, B. B. & Thisgaard, H., 1. May 2021, In: Nuclear Medicine and Biology. 96-97, p. 35-40

### **Status and future perspectives of Meitner-Auger and low energy electron-emitting radionuclides for targeted radionuclide therapy**

Radchenko, V., Engle, J. W. & Thisgaard, H., 1. Mar 2021, In: Nuclear Medicine and Biology. 94-95, p. 106 1 p.

### **Multi-curie production of gallium-68 on a biomedical cyclotron and automated radiolabelling of PSMA-11 and DOTATATE**

Thisgaard, H., Kumlin, J., Langkjær, N., Chua, J., Hook, B., Jensen, M., Kassaian, A., Zeisler, S., Borjian, S., Cross, M., Schaffer, P. & Dam, J. H., 7. Jan 2021, In: EJNMMI radiopharmacy and chemistry. 6, 11 p., 1.

### **Preclinical Evaluation of the Copper-64 Labeled GRPR-Antagonist RM26 in Comparison with the Cobalt-55 Labeled Counterpart for PET-Imaging of Prostate Cancer**

Baun, C., Mitran, B., Rinne, S. S., Dam, J. H., Olsen, B. B., Tolmachev, V., Orlova, A. & Thisgaard, H., 18. Dec 2020, In: Molecules. 25, 24

### **Evaluation of <sup>64</sup>Cu-labelled GRPR-antagonist RM26 for PET-imaging of prostate cancer in a preclinical model**

Rinne, S., Mitran, B., Baun, C., Dam, J. H., Olsen, B. B., Tolmachev, V., Thisgaard, H. & Orlova, A., Sept 2020, In: European Journal of Nuclear Medicine and Molecular Imaging. 47, Suppl. 1, p. 372-373 OP-755.

**Design, synthesis, computational, and preclinical evaluation of  $^{45}\text{Ti}$ -labeled urea-based glutamate PSMA ligand**  
Pedersen, K. S., Baun, C., Nielsen, K. M., Thisgaard, H., Jensen, A. I. & Zhuravlev, F., 2. Mar 2020, In: *Molecules*. 25, 5, 19 p., 1104.

**Improving contrast and detectability - imaging with  $^{55}\text{Co}$ Co-DOTATATE in comparison with  $^{64}\text{Cu}$ Cu-DOTATATE and  $^{68}\text{Ga}$ Ga-DOTATATE**

Andersen, T. L., Baun, C., Olsen, B. B., Dam, J. H. & Thisgaard, H., Feb 2020, In: *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*. 61, 2, p. 228-233

**Selection of an optimal macrocyclic chelator improves the imaging of prostate cancer using cobalt-labeled GRPR antagonist RM26**

Mitran, B., Thisgaard, H., Rinne, S., Dam, J. H., Azami, F., Tolmachev, V., Orlova, A. & Rosenström, U., 19. Nov 2019, In: *Scientific Reports*. 9, 11 p., 17086.

**Multi-Curie Production of Gallium-68 on a Biomedical Cyclotron**

Kumlin, J., Dam, J. H., Chua, C. J., Borjian, S., Kassaian, A., Hook, B., Zeisler, S., Schaffer, P. & Thisgaard, H., 1. Oct 2019, In: *European Journal of Nuclear Medicine and Molecular Imaging*. 46, Suppl. 1, p. S39 1 p., OP-086.

**$^{58\text{m}}\text{Co}$ Co-DOTA-hEGF: A novel ligand for targeted Auger electron therapy of glioblastoma using convection-enhanced delivery**

Laursen, V., Baun, C., Aaberg Poulsen, C., Olsen, B. B., Dam, J. H., Jensen, A. & Thisgaard, H., May 2019, In: *Journal of Labelled Compounds and Radiopharmaceuticals*. 62, S1, p. S511-S512

**$^{55}\text{Co}$ Co-DOTATATE improves PET imaging contrast of somatostatin receptor expressing tumours: Comparison with  $^{64}\text{Cu}$  Cu-DOTATATE and  $^{68}\text{Ga}$ Ga-DOTATATE**

Thisgaard, H., Andersen, T. L., Baun, C., Dam, J. H. & Olsen, B. B., May 2019, In: *Journal of Labelled Compounds and Radiopharmaceuticals*. 62, S1, p. S454-S455

**Chelation, formulation, encapsulation, retention, and in vivo biodistribution of hydrophobic nanoparticles labelled with  $^{57}\text{Co}$ -porphyrin: Oleylamine ensures stable chelation of cobalt in nanoparticles that accumulate in tumors**

Hervella, P., Dam, J. H., Thisgaard, H., Baun, C., Olsen, B. B., Høilund-Carlson, P. F. & Needham, D., 10. Dec 2018, In: *Journal of Controlled Release*. 291, p. 11-25

**Selection of optimal macrocyclic chelator for high contrast PET imaging of gastrin releasing peptide receptor using cobalt-labeled bombesin antagonist RM26**

Mitran, B., Thisgaard, H., Rinne, S. S., Rosenstrom, U., Azamy, F., Dam, J., Tolmachev, V. & Orlova, A., 1. Oct 2018, In: *European Journal of Nuclear Medicine and Molecular Imaging*. 45, Suppl. 1, p. S672-S673 1 p.

**Effects of insulin and blood glucose on FDG-uptake in a mouse lung tumour model**

Baun, C., Nielsen, A. L., Gerke, O., Falch Braas, K., Olsen, B. B., Thisgaard, H. & Høilund-Carlson, P. F., Oct 2018, In: *European Journal of Nuclear Medicine and Molecular Imaging*. 45, Suppl. 1, p. S563 1 p., EP-0662.

**Selection of optimal macrocyclic chelator for high contrast PET imaging of gastrin releasing peptide receptor using cobalt-labeled bombesin antagonist RM26**

Mitran, B., Thisgaard, H., Rinne, S. S., Rosenström, U., Azamy, F., Dam, J. H., Tolmachev, V. & Orlova, A., Oct 2018, In: *European Journal of Nuclear Medicine and Molecular Imaging*. 45, Suppl. 1, p. S672-S673 EP-0913.

**The use of radiocobalt as a label improves imaging of EGFR using DOTA-conjugated Affibody molecule**

Garousi, J., Andersson, K. G., Dam, J. H., Olsen, B. B., Mitran, B., Orlova, A., Buijs, J., Ståhl, S., Löfblom, J., Thisgaard, H. & Tolmachev, V., 1. Dec 2017, In: *Scientific Reports*. 7, 10 p., 5961.

**Formulation and in vivo biodistribution of  $^{57}\text{Co}$ -porphyrin-labelled hydrophobic liquid nanoparticles**

Hervella, P., Dam, J. H., Thisgaard, H., Baun, C., Olsen, B. B., Høilund-Carlson, P. F. & Needham, D., Oct 2017, In: *European Journal of Nuclear Medicine and Molecular Imaging*. 44, Suppl. 2, p. 307-308 OP-533.

**[58mCo]Co-DOTA-PSMA-617: A novel radioligand for Auger electron therapy of prostate cancer**

Thisgaard, H., Olsen, B. B., Baun, C. & Dam, J. H., May 2017, In: Journal of Labelled Compounds and Radiopharmaceuticals. 60, Suppl. 1, p. S327 1 p., P 167.

**[55Co]Co-DOTA-PSMA-617 for PET/CT Imaging of Prostate Cancer in Xenograft Mice**

Dam, J. H., Olsen, B. B., Baun, C. & Thisgaard, H., 2017.

**[55Co]Co-DOTA-PSMA-617 for PET/CT Imaging of Prostate Cancer in Xenograft Mice**

Dam, J. H., Olsen, B. B., Baun, C. & Thisgaard, H., 2017, In: Journal of Labelled Compounds and Radiopharmaceuticals. 60, Suppl. 1, p. S640 1 p., P 458 .

**A PSMA Ligand Labeled with Cobalt-55 for PET Imaging of Prostate Cancer**

Dam, J. H., Olsen, B. B., Baun, C., Høilund-Carlsen, P. F. & Thisgaard, H., 2017, In: Molecular Imaging and Biology. 19, 6 , p. 915–922

**Evaluation of somatostatin and nucleolin receptors for therapeutic delivery in non-small cell lung cancer stem cells applying the somatostatin-analog DOTATATE and the nucleolin-targeting aptamer AS1411**

Holmboe, S., Hansen, P. L., Thisgaard, H., Block, I., Müller, C., Langkjær, N., Høilund-Carlsen, P. F., Olsen, B. B. & Mollenhauer, J., 2017, In: PLOS ONE. 12, 5, 12 p., e0178286.

**High contrast pet imaging of GRPR expression in prostate cancer using cobalt-labeled bombesin antagonist RM26**

Mitran, B., Thisgaard, H., Rosenström, U., Dam, J. H., Larhed, M., Tolmachev, V. & Orlova, A., 2017, In: Contrast Media & Molecular Imaging. 2017, 10 p., 6873684.

**Radiation-resistant cancer stem cells are sensitive to Auger-electron emission**

Olsen, B. B., Høilund-Carlsen, P. F. & Thisgaard, H., 16. Oct 2016.

**Evaluation of nucleolin and somatostatin receptor targeting for therapeutic delivery to lung cancer stem cells**

Hansen, P. L., Holmboe, S., Olsen, B. B., Thisgaard, H., Christiansen, H., Schmidt, S., Block, I., Müller, C., Langkjær, N., Jørgensen, P. T., Vogel, S., Wengel, J., Høilund-Carlsen, P. F. & Mollenhauer, J., 27. Jun 2016.

**In Vivo Evaluation of a Bombesin Analogue Labeled with Ga-68 and Co-55/57**

Dam, J. H., Olsen, B. B., Baun, C., Høilund-Carlsen, P. F. & Thisgaard, H., Jun 2016, In: Molecular Imaging and Biology. 18, 3, p. 368-376

**Highly Effective Auger-Electron Therapy in an Orthotopic Glioblastoma Xenograft Model using Convection-Enhanced Delivery**

Thisgaard, H., Halle, B., Aaberg-Jessen, C., Olsen, B. B., Nautrup Therkelsen, A. S., Dam, J. H., Langkjær, N., Munthe, S., Nægren, K., Høilund-Carlsen, P. F. & Kristensen, B. W., 1. Jan 2016, In: Theranostics. 6, 12, p. 2278-2291

**Radiation-resistant cancer stem cells are sensitive to Auger-electron emission**

Olsen, B. B., Høilund-Carlsen, P. F. & Thisgaard, H., 2016, In: European Journal of Nuclear Medicine and Molecular Imaging. 43, suppl. 1, p. S480 1 p., EP674.

**Auger electron therapy for glioblastoma**

Thisgaard, H., Halle, B., Høilund-Carlsen, P. F., Kristensen, B. W. & Aaberg-Jessen, C., 23. Dec 2015, Patent No. WO2015EP63823, 19. Jun 2015, Priority date 20. Jun 2014, Priority No. EP20140173218

**Relationship between somatostatin receptor expression, DNA damage and cell survival in cancer cells incubated with a cobalt-labeled octreotide analogue**

Olsen, B. B., Dam, J. H., Müller, C., Mollenhauer, J., Høilund-Carlsen, P. F. & Thisgaard, H., 29. May 2015.

#### **PET imaging with the non-pure positron emitters: $^{55}\text{Co}$ , $^{86}\text{Y}$ and $^{124}\text{I}$**

Braad, P.-E., Hansen, S. B., Thisgaard, H. & Høilund-Carlsen, P. F., 9. Apr 2015, In: *Physics in Medicine and Biology*. 60, 9, p. 3479-3497

#### **Seeing the unseen-bioturbation in 4D: Tracing bioirrigation in marine sediment using positron emission tomography and computed tomography**

Delefosse, M., Kristensen, E., Crunelle, D., Braad, P. E., Dam, J. H., Thisgaard, H., Thomassen, A. & Høilund-Carlsen, P. F., 4. Apr 2015, In: *PLOS ONE*. 10, 4, p. 1-17

#### **Estimation of Tumor Volumes by $^{11}\text{C}$ -MeAIB and $^{18}\text{F}$ -FDG PET in an Orthotopic Glioblastoma Rat Model**

Halle, B., Thisgaard, H., Hvidsten, S., Dam, J. H., Thykjær, A. S., Høilund-Carlsen, P. F., Schulz, M. K., Andersen, C. & Kristensen, B. W., 2015, In: *Journal of Nuclear Medicine*. 56, 10, p. 1562-1568

#### **Estimation of tumour volumes by [ $^{11}\text{C}$ ]MeAIB and [ $^{18}\text{F}$ ]FDG PET in an orthotopic glioblastoma model**

Aaberg-Jessen, C., Halle, B., Thisgaard, H., Hvidsten, S., Dam, J. H., Thykjær, A. S., Høilund-Carlsen, P. F., Schulz, M. K., Andersen, C. & Kristensen, B. W., 2015, In: *European Journal of Nuclear Medicine and Molecular Imaging*. 42, 1 Supplement, p. 423-425 1 p., P173.

#### **Estimation of tumour volumes by [ $^{11}\text{C}$ ]MeAIB and [ $^{18}\text{F}$ ]FDG PET in an orthotopic glioblastoma model**

Aaberg-Jessen, C., Halle, B., Thisgaard, H., Hvidsten, S., Dam, J. H., Thykjær, A. S., Høilund-Carlsen, P. F., Schulz, M. K., Andersen, C. & Kristensen, B. W., 2015.

#### **Novel treatment strategy for glioblastomas using Auger-electron therapy and concomitant chemotherapy: in vitro studies**

Therkelsen, A., Olsen, B. B., Halle, B., Høilund-Carlsen, P. F. & Thisgaard, H., 2015, In: *European Journal of Nuclear Medicine and Molecular Imaging*. 42, 1 Supplement, p. 113 1 p., OP275.

#### **The use of radiocobalt as a label improves PET imaging of EGFR using DOTA-conjugated affibody molecules**

Garousi, J., Anderson, K., Dam, J. H., Olsen, B. B., Orlova, A., Buijs, J., Ståhl, S., Thisgaard, H. & Tolmachev, V., 2015, In: *European Journal of Nuclear Medicine and Molecular Imaging*. 42, 1 Supplement, p. 244 1 p., OP582.

#### **In Vivo Evaluation of a Bombesin Analogue Labelled with $^{68}\text{Ga}$ and $^{55}/^{57}\text{Co}$**

Dam, J. H., Olsen, B. B., Baun, C., Høilund-Carlsen, P. F. & Thisgaard, H., 18. Oct 2014, In: *European Journal of Nuclear Medicine and Molecular Imaging*. 41, 2. Supplement, p. S251 1 p., OP414.

#### **Evaluation of Cobalt-Labeled Octreotide Analogs for Molecular Imaging and Auger Electron-Based Radionuclide Therapy**

Thisgaard, H., Olsen, B. B., Dam, J. H., Bollen, P., Mollenhauer, J. & Høilund-Carlsen, P. F., 1. Aug 2014, In: *Journal of Nuclear Medicine*. 55, 8, p. 1311-1316

#### **Convection-enhanced delivery of the Auger-electron-emitter I-125-UdR: A highly efficient therapy in an Orthotopic Glioblastoma Xenograft Model**

Halle, B., Thisgaard, H., Aaberg-Jessen, C., Olsen, B. B., Dam, J. H., Langkjaer, N., Munthe, S., Nægren, K., Høilund-Carlsen, P. F. & Kristensen, B. W., 2014, In: *Neuro-Oncology*. 16, Suppl. 5, p. v84 ET-22.

#### **Novel radioisotope-based nanomedical approaches**

Olsen, B. B., Thisgaard, H., Vogel, S., Thomassen, M., Kruse, T. A., Needham, D., Mollenhauer, J. & Høilund-Carlsen, P. F., 2. Dec 2013, In: *European Journal of Nanomedicine*. 5, 4, p. 181-193

#### **Fully Automated Radiosynthesis and Formulation of [ $^{11}\text{C}$ ]MeAIB Applied for *In Vivo* Imaging of Glioblastoma**

Dam, J. H., Halle, B., Thisgaard, H., Hvidsten, S., Kristensen, B. W. & Nægren, K., 17. May 2013.

#### **Biological evaluation of cobalt-labeled octreotide analogues; Novel compounds for PET imaging and Auger-electron-based radionuclide therapy**

Thisgaard, H., Olsen, B. B., Dam, J. H. & Høilund-Carlsen, P. F., May 2013, In: *Journal of Labelled Compounds and Radiopharmaceuticals*. 56, S1, p. S448 1 p.

**Fully Automated Radiosynthesis and Formulation of [<sup>11</sup>C]MeAIB Applied for In Vivo Imaging of Glioblastoma**  
Dam, J. H., Halle, B., Thisgaard, H., Hvidsten, S., Kristensen, B. W. & Någren, K., 2013, In: Journal of Labelled Compounds and Radiopharmaceuticals. 56, S1, p. S112 1 p.

**Set-up of Mouse Models for Nanodrug Testing**

Hansen, P. L., Riedel, A., Schmidt, S., Terp, M. G., Trojnar, J. H., Schifter, S., Olsen, B. B., Thisgaard, H., Ditzel, H., Høilund-Carlsen, P. F. & Mollenhauer, J., 2013.

**Quantitative 124I-PET: Evaluation of Prompt Gamma Coincidence Correction on a Clinical PET/CT system**

Braad, P-E., Hansen, S. B., Thisgaard, H. & Høilund-Carlsen, P. F., 27. Oct 2012.

**Experimental verification of Auger emitter radiotoxicity using exotic radionuclides**

Jensen, M., Koester, U. & Thisgaard, H., 2012, In: Radiotherapy & Oncology. 102, Suppl. 1, p. 178-179

**SPECT imaging with the therapeutic Auger electron emitter Er-165**

Thisgaard, H., Hvidsten, S. & Bollen, P., Sept 2011.

**A new and simple calibration-independent method for measuring the beam energy of a cyclotron**

Gagnon, K., Jensen, M., Thisgaard, H., Publicover, J., Lapi, S., McQuarrie, S. & Ruth, T. J., Jan 2011, In: Applied Radiation and Isotopes. 69, 1, p. 247-253

**Medium to large scale radioisotope production for targeted radiotherapy using a small PET cyclotron**

Thisgaard, H., Jensen, M. & Elema, D. R., 2011, In: Applied Radiation and Isotopes. 69, 1, p. 1-7

**Production and dosimetric aspects of the potent Auger emitter 58mCo for targeted radionuclide therapy of small tumors**

Thisgaard, H., Elema, DR. & Jensen, M., 2011, In: Medical Physics. 38, 8, p. 4535-4541 7 p.

**Radiosynthesis of 55Co- and 58mCo-labelled DOTATOC for positron emission tomography imaging and targeted radionuclide therapy**

Thisgaard, H., Olesen, M. L. & Dam, J. H., 2011, In: Journal of Labelled Compounds and Radiopharmaceuticals. 54, 12, p. 758-762 5 p.

**Production and dosimetric aspects of the potent Auger emitter 58mCo for targeted radionuclide therapy of small tumours**

Thisgaard, H., Jensen, M. & Elema, D. R., 2010, In: European Journal of Nuclear Medicine and Molecular Imaging. 37, Suppl 2, p. S356-S357

**Production of therapeutic quantities of 64Cu and 119Sb for radionuclide therapy using a small PET cyclotron**

Thisgaard, H., Jensen, M. & Elema, D. R., 2010. 2 p.

**Production of the Auger emitter 119Sb for targeted radionuclide therapy using a small PET-cyclotron**

Thisgaard, H. & Jensen, M., 1. Jan 2009, In: Applied Radiation and Isotopes. 67, 1, p. 34-8 5 p.

**Accelerator based Production of Auger-electron-emitting Isotopes for Radionuclide Therapy**

Thisgaard, H., 27. Aug 2008, Risø National Laboratory. 127 p.

**119Sb — A potent Auger emitter for targeted radionuclide therapy**

Thisgaard, H. & Jensen, M., 7. Aug 2008, In: Medical Physics. 35, 9, p. 3839-3846

**Auger Electron Therapy**

Hinrichsen R, Thisgaard, H., Jensen M, Lyngkjær MF & Martiny L, 2007.

The  $^{108}\text{Cd}(\alpha,2n)^{110}\text{Sn}$  nuclear reaction – A production route to the PET-radionuclide  $^{110\text{m}}\text{In}$   
Thisgaard, H., Jensen M & Jensen H.J, 2004.

High-spin states, lifetime measurements and isomers in Os-181

Cullen, DM., Pattison, LK., Smith, JF., Fletcher, AM., Walker, PM., El-Masri, HM., Podolyak, Z., Wood, RJ., Scholey, C., Wheldon, C., Mukherjee, G., Balabanski, D., Djongolov, M., Dalsgaard, T., Thisgaard, H., Sletten, G., Kondev, F., Jenkins, D., Dracoulis, GD., Lane, G.J., & 3 others Lee, IY., Macchiavelli, AO. & Xu, F., 15. Dec 2003, In: Nuclear Physics A. 728, 3-4, p. 287-338

Multiphonon vibrations at high angular momentum in  $^{182}\text{Os}$

Pattison, L. K., Cullen, D. M., Smith, J. F., Fletcher, A. M., Walker, P. M., El-Masri, H. M., Podolyák, Z., Wood, R. J., Scholey, C., Wheldon, C., Mukherjee, G., Balabanski, D., Djongolov, M., Dalsgaard, T., Thisgaard, H., Sletten, G., Kondev, F., Jenkins, D., Lane, G. J., Lee, I-Y., & 3 others Macchiavelli, A. O., Frauendorf, S. & Almeded, D., 31. Oct 2003, In: Physical Review Letters. 91, 18, p. 182501

## Undervisningsportfolio

### 1. Formel pædagogisk uddannelse

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Pædagogisk uddannelse:

2012-13 Universitetspædagogikum, Syddansk Universitet.

2013 "Student response systems", Syddansk Universitet, 0,5 ECTS.

2013 "Involverende metoder, der skaber resultater - Kursus 4: Idegenerering", Syddansk Universitet, 0,5 ECTS.

2012 "Aktiver dine studerende med diskussionsfora, blogs og wikier", Syddansk Universitet, 0,5 ECTS.

2012 "Vejledning – roller og relationer", Syddansk Universitet, 0,75 ECTS.

2007 "Mundtlig kommunikation", Roskilde Universitetscenter, 2 hele dage.

### 2. Uddannelsesadministrative opgaver

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2015- Kursusansvarlig "Small Animal Molecular Imaging", Ph.d.-kursus, Syddansk Universitet, i samarbejde med lektor Peter Bollen (kursus under udarbejdelse).

2011-12 Modultovholder for "Strålebiologi og strålebeskyttelse", Syddansk Universitet.

### 3. Erfaring med undervisning, vejledning og eksamen

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Kursusundervisning:

2015- "Small Animal Molecular Imaging", Ph.d.-kursus, Syddansk Universitet, i samarbejde med lektor Peter Bollen (kursus under udarbejdelse).

2012- "Bioinorganic Chemistry (KE810)", Syddansk Universitet. Gæsteforelæser, 2 lektioner pr. semester, i samarbejde med kollega.

2012 "Laboratory Animal Science", Syddansk Universitet. Forelæsninger, plenumdiskussioner, praktiske øvelser (6 lektioner). 5 ECTS, i samarbejde med kolleger.

2011-12 "Strålebiologi og strålebeskyttelse", Syddansk Universitet. Modulansvar, forelæsninger, gruppearbejde, plenumdiskussioner, praktiske øvelser, eksamination. 5 ECTS, i samarbejde med gæsteforelæsere.

2003-04 "Radioisotope Methodology and Health Physics", Det Biovidenskabelige Fakultet, Københavns Universitet.

Laboratorie- og regneøvelser, 16 eftermiddage af 3-4 timer, inkl. udformning af undervisningsmateriale, i samarbejde med kollega.

Intern undervisning:

2009- Intern undervisning af læger og bioanalytikere i form af foredrag på Nuklearmedicinsk Afd, Odense Universitetshospital.

2012 Undervisning i strålebeskyttelse af personalet på Biomedicinsk Laboratorium.

2008 Intern undervisning af fysikere og radiografer i form af foredrag på Onkologisk Afd., Odense Universitetshospital.

2005-2008 Intern undervisning af bioanalytikere om strålehygiejne, undervisning af gymnasieelever, etc. ved Hevesy Laboratoriet, Risø DTU.

Anvendte evaluerings/eksamensformer:

2012 Eksamen via e-learn med korte åbne spørgsmål (den praktiske opsætning af denne eksamen blev dog udført af den kursusansvarlige for dette kursus).

2011-12 Skriftlig hjemmeopgave med bundet emne, bedømt ved 7-trins skalaen.

2003-04 Godkendelse af rapporter for obligatoriske laboratorieøvelser.

Vejledning af studerende:

Vejleder for: Nuværende (total): Postdocs: 0 (3), PhD stud: 1 (2), MSc stud: 1 (7), BSc stud: 0 (4), ISA-stud: 1 (5).

### 4. Metoder, materialer og redskaber

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Udarbejdet undervisningsmateriale:

•Laboratorieøvelsesvejledninger til otte øvelser for kurset Radioisotope Methodology and Health Physics.

- Undervisningsslides i Powerpoint til kurset Strålebiologi og strålebeskyttelse.
- Undervisningsslides i Powerpoint til kurset Laboratory Animal Science.
- Øvelsesvejledning til praktiske "hands on" scanningsøvelser på kurset Laboratory Animal Science.
- Undervisningsslides i Powerpoint til kurset Bioinorganic Chemistry.
- Online diskussionsforum som e-learn redskab.

Benyttede undervisningsmetoder/redskaber:

- Forelæsninger opdelt af summemøder, plenumdiskussioner og praktiske regneøvelser/computersimuleringer udført af de studerende, der underbygger og visualiserer de beskrevne teorier og metoder.
- "Hands on" praktiske øvelser hvor kompleks teori afprøves i praksis.
- E-læring via et online diskussionsforum på Syddansk Universitets Blackboard.

#### 5. Uddannelsesudvikling og universitetspædagogiks forskning

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Pædagogiske udviklingsprojekter:

- H. Thisgaard, Aktiverende undervisning i komprimerede undervisningsforløb, poster præsenteret ved Universitetspædagogikum 2012-2013 afslutning, Syddansk Universitet.

Formålet med projektet var at undersøge effekten af aktiverende undervisning i komprimerede undervisningsforløb (heldagsundervisning) i form af et online diskussionsforum samt praktiske/teoretiske "hands on" øvelser, eksempelvis i form af PET/SPECT scanning af rotter og mus.