1. Higher education degree(s)

2005, M.Sc. Mathematics

2005, M.Sc. Computer Science

1994, Registered Nurse, Oncology Nursing

2. Doctoral degree

2012, Biosciences/Radiation Oncology, *Radiation Oncology Data and Modelling Side Effects after Radiation Therapy*, Graham Kemp, Department of Computer Science and Engineering, Chalmers University of Technology, Gothenburg, Sweden

3. Associate professor degree

2017, Sahlgrenska Academy, University of Gothenburg, Sweden; subject: Radiation Physics

4. Current position, period of appointment and percentage of employment time dedicated to research

Responsible for research and development at Regional Cancer Center (RCC) West, the Western Sweden Healthcare Region in Gothenburg, Sweden, 2017-09-01 – present (100%)

5. Previous positions and periods of appointment

2015-2017: Scholarship from the Swedish Association for Medical Research (SSMF) supporting the achievement of Associate Professor Degree, combined with 20% employment at Regional Cancer Center (RCC) West, the Western Sweden Healthcare Region in Gothenburg, Sweden (2 years)

2012-2015, Postdoc at the Division of Clinical Cancer Epidemiology, Department of Oncology, Institute of Clinical Sciences at the Sahlgrenska Academy, University of Gothenburg, Sweden (3 years)

2008–2012, Ph.D. student at the Chalmers Graduate School of Bioscience, Department of Computer Science and Engineering, Chalmers University of Technology and the Department of Radiation Physics, Clinical sciences at the Sahlgrenska Academy (4 years)

2006–2008, Project assistant at the Department of Radiation Physics, Clinical Sciences, Sahlgrenska Academy (1.5 years)

1994–2006 (intermittent employment), Nurse at the Department of Physics and Biomedical Engineering, Sahlgrenska University Hospital (equivalent to 100% for 3.5 years)

2005, Project assistant at the Department of Mathematics, Chalmers University of Technology (1 month)

1995–2005 (intermittent employment), Nurse at the Department of Radiation Therapy, Sahlgrenska University Hospital (equivalent to 100% for 2.5 years)

1994, Nurse at the Department of Radiation Therapy at Regionsjukhuset, Örebro, Sweden (1.5 months)

1990–1993 (intermittent employment) Nurse Assistant at a hospital ward for the elderly, Rosenlunds Vårdcentrum, Jönköping, Sweden (equivalent to 100% for 2 years)

1990, Girl Scout leader at Camp Henry Kaufmann, Bolivar, Pennsylvania, USA (2 months)

1989-1990, Clerk at the Capita Financial Group in Perth, W.A., Australia (4 months)

6. Deductible time

Parental leave, March 2000 – August 2001, 100%, (1.5 years)

7. Other information

a. Teaching

2020; 2013, Subject: Medical Statistics/Mathematics, Lecturer in the doctoral school "Clinical research to clinical epidemiological methods" at the Sahlgrenska Academy (14 x 40 minutes)

2009–2010, 2013, Subject: Radiobiology, Lecturer in the master's course "Basic radiobiology" at the Department of Radiation Physics, University of Gothenburg (23 x 40 minutes)

2008–2009, Subject: Mathematics, Guest lecturer in the master's course "Applied optimization" at the Department of Mathematical Sciences, Chalmers University of Technology and University of Gothenburg (4 x 40 minutes)

b. Supervision of students

Graduate: 2018-present, L.Ph. Technology Management and Economics, Paul Holmström Department of Radiation Physics, Sahlgrenska Academy at the University of Gothenburg (Preliminary Thesis title: *Identifying suitable group interventions to ensure realization of improvement projects in Swedish healthcare, supported by Action research methodology and System Dynamics*) [Main Supervisor]

2017-present, Medical Physicist Jesper Lindberg, Department of Radiation Physics, Sahlgrenska Academy at the University of Gothenburg (Preliminary Thesis title: *System Dynamics Modelling of the Radiation Therapy Process*) [Main Supervisor]

2015-present, Medical Doctor Johanna Hedström, Department of Otorhinolaryngology, Head and Neck Surgery, Sahlgrenska Academy at the University of Gothenburg (Preliminary Thesis title: "*Radiation-induced Dysphagia in Head and Neck Cancer – Risk Structures and Swallowing Intervention*") [Co-Supervisor]

2013-2015, Medical Doctor Nina Pauli, Department of Otorhinolaryngology, Head and Neck Surgery, Sahlgrenska Academy at the University of Gothenburg (Ph.D. degree in awarded 2015-01-23; Thesis title: "*Treating Radiation-Induced Trismus in Head and Neck Cancer Exercise Intervention and Risk Structures*") [Co-Supervisor]

2012–2013, Medical Physicist Niclas Pettersson, Department of Radiation Physics, Sahlgrenska Academy at the University of Gothenburg (Ph.D. degree in Radiation Physics awarded 2013-03-15;

Thesis title: "*Modelling late Toxicity in Hypofractionated Radiation Therapy – Developments of Methods and Applications to Clinical Data*") [Co-Supervisor]

Undergraduate: 2019, M.Sc. student Thao Dang, Department of Radiation Physics, Sahlgrenska Academy at the University of Gothenburg (Master thesis in Medical Physics passed 2020-01-17; Thesis title: "*Standardized organ at risk volume in external beam radiation therapy for prostate cancer and its relationship to volumes defined by clinical practise*") [Main Supervisor]

2014, M.Sc. student Didem Köroglu, Department of Radiation Physics, Sahlgrenska Academy at the University of Gothenburg (Master thesis in Medical Physics passed 2015-01-16; Thesis title: "*Radiation-induced Trismus Evaluation of Potentially Critical Subvolumes within the Masseter Muscle*") [Main Supervisor]

2013, M.D. student Marie Johansson, Department of Oncology, Sahlgrenska Academy at the University of Gothenburg (Master thesis in Medicine passed 2013-12-04; Thesis title: "*Radiation-induced sexually related symptoms and well-being in prostate cancer survivors*") [Main Supervisor]

2013, M.D. student Ingrid Mattsson, Department of Oncology, Sahlgrenska Academy at the University of Gothenburg (Master thesis in Medicine passed 2013-12-04; Thesis title: "*Late Urinary tract side effects and Bother following Radiation Therapy for Prostate Cancer*") [Main Supervisor]

c. Grading committee assignments

2020, Half-time seminar, Ph.D. student Jonathan Arvidsson, Department of Radiation Physics, Sahlgrenska Academy at the University of Gothenburg (Course passed 2020-09-16; Report title: "*Improvements in perfusion MRI: Dynamic modelling of dynamic susceptibility contrast and blood oxygen level dependant imaging*").

2020, Half-time seminar, Ph.D. student Emilia Palmér, Department of Radiation Physics, Sahlgrenska Academy at the University of Gothenburg (Course passed 2020-03-13; Report title: "*MRI-only workflow in photon radiation therapy for external treatment of head and neck cancer*").

2019, Half-time seminar, Ph.D. student Jenny Nyqvist, Department of Surgery, Skaraborgs Hospital and Sahlgrenska Academy at the University of Gothenburg (Course passed 2018-02-22; Report title: "*Förekomst av primära, multipla maligniteter hos bröstcancerpatienter; en retrospektiv, statistisk, epidemiologisk och immunhistokemisk utvärdering under 11 år (2007-2017)*").

2016, Half-time seminar, Ph.D. student Viktor Sandblom, Department of Radiation Physics, Sahlgrenska Academy at the University of Gothenburg (Course passed 2016-12-20; Report title: *"Optimisation of 177Lu-octreotate therapy"*).

2016, Half-time seminar, Ph.D. student Oscar Gustafsson, Department of Radiation Physics, Sahlgrenska Academy at the University of Gothenburg (Course passed 2016-09-30; Report title: *"Development of MR methods for measurements of tissue microstructure and perfusion Applications in brain and liver"*).

2014, Half-time seminar, Ph.D. student Emma Hedin, Department of Radiation Physics, Sahlgrenska Academy at the University of Gothenburg (Course passed 2014-10-21; Report title: *"Estimation of lung dose and risk for radiation-induced complications after breast and lung cancer treatments"*).

d. Grants

Funding source	Ref. No.	Project title	Years	SEK/year
Jubileumsklinikens Cancer Research Foundation	2019:253	Standardizing radiation therapy data to increase confidence in tolerance doses for radiation-induced toxicities	2020-2022	200000
Swedish Prostate Cancer Association	N/A	Introducing National Swedish standards in radiation therapy: Using data from the national prostate cancer register to evaluate evidence-based contouring guidelines for pelvic organs at risk	2020-2021	200000
Jubileumsklinikens Cancer Research Foundation	2018:202	Standardizing radiation therapy data to increase confidence in tolerance doses for radiation-induced toxicities	2019-2021	100000
Kamprad Family Foundation for Entrepreneurship, Research & Charity	20190083	An IT tool based on system dynamics modelling to improve operations planning and organization of radiation therapy	2019-2021	1000000
Vinnova/SWElife/SWEPER	N/A	Standardizing contouring in radiation therapy: From text and images to SNOMED CT and machine-readable data	2018	210000
Jubileumsklinikens Cancer Research Foundation	2017:124	Standardizing radiation therapy data to increase condfidence in tolerance doses for radiation-induced toxicities	2018-2020	83000
FoU Western Sweden Healthcare Region	VGFOUREG-751221	Relationships between MRI-signals, radiation dose to various organs-at-risk, and trismus after radiotherapy for head and neck cancer	2018-2019	115000
Swedish Research Council*	2017-01753	System dynamics modelling of the radiation therapy process: Field studies, simulations, and practical solutions for Swedish health care	2018-2020	1150000
ALF Western Sweden Healthcare Region	ALFGBG-720111	Modelling the radiation therapy process and standardizing radiation therapy data to increase confidence in tolerance doses for radiation-induced toxicities	2018-2021	400000
FoU Western Sweden Healthcare Region	VGFOUREG-654751	Relationships between MRI-signals, radiation dose to various organs-at-risk, and trismus after radiotherapy for head and neck cancer	2017-2018	109000
Swedish Association for Medical Research (SSMF), 2-year scholarship in support of support of Associate Professor Degree achievement		Advanced modelling of normal tissue responses in radiotherapy	2015-2017	400000
Kamprad Family Foundation for Entrepreneurship, Research & Charity	20170075	Advanced modelling of normal tissue responses in radiotherapy	2015-2017	450000
Jubileumsklinikens Cancer Research Foundation	2014:36	Predictive modelling of radiation-induced trismus and dysphagia in head and neck cancer	2014	300000
Jubileumsklinikens Cancer Research Foundation	2013:40	Advanced modelling of late toxicity in prostate cancer radiotherapy	2013	250000
Jubileumsklinikens Cancer Research Foundation	2013:20	Travelling grant to visit research group at Memorial Sloan Kettering Cancer Center, New York, 21 days	2013	47730
Tore Nilssons stiftelse	N/A	Travelling grant to visit international host/collaborating research department in New York, USA	2013	14000
Syskonen Svenssons fond för Medicinsk forskning	N/A	Advanced modelling of late toxicity in prostate cancer radiotherapy	2013	50000
Jubileumsklinikens Cancer Research Foundation	2009:05	Radiobiology from two international researchers' perspectives'	2009	39680
Assar Gabrielsson Foundation for clinical cancer research	FB 14-29, FB 13-91, FB 12-38, FB 11-46, FB 10-55, FB 09-51, FB 08-68	Various titles adressing predictive modelling of normal tissue response	2008-2014	35000-72000

**Co-applicant of T. Björk-Eriksson (Head of Regional Cancer Center (RCC) West, Western Sweden Healthcare region, Göteborg, Sweden*

e. Awards

2011, “Challenges and Visions Award" sponsored by the Computing Community Consortium (CCC) at the International Workshop on Managing Interoperability and compleXity in Health Systems (MIX-HS'11)/20th ACM International Conference on Information and Knowledge Management.

f. Languages

Swedish, English, basic knowledge of German

g. ORCID

0000-0003-3254-8903; h-index:9; number of citations: 831 (access date: Aug 31st, 2020)

h. Miscellaneous

2018-present: Member of the steering committee for Regional Cancer Center (RCC) West, the Western Sweden Healthcare Region in Gothenburg, Sweden

2017-present: Research coordinator of the Partnership for Precision Cancer Medicine (PPCM) initiative/Gothenburg by the Sjöberg Foundation

2015- present: Advisor to the National quality register for Radiation therapy data

2015- 2016: Chair of NASKC, the national working group in support of clinical cancer research appointed by the six Regional Cancer Centers in Sweden

2012–2015: Member of the steering committee for the SSM-sponsored project “A national database for radiation therapy dose data”

Referee assignments for the International Journal of Radiation Oncology Biology Physics, (IJROBP), Radiotherapy and Oncology (RO), Acta Oncologica, Acta Oto-Laryngologica (AOL), Clinical Oral Investigations (CLOI), and Practical Radiation Oncology (PRO).

8. Peer-reviewed papers *equal contribution between authors

[36] Hedström J, Johansson M, **Olsson C**, Tuomi L, and Finizia C. *Quality of care in dysphagia patients:adaption and validation of the Swedish SWAL_CARE questionnaire*. Health Qual Life Outcomes 2020; 18:316.

[35] Lindberg J, Holmström P, Hallberg S, Eriksson-Björk T, and **Olsson C**. A national perspective about the current work situation at modern radiotherapy departments. Accepted for publication in Clinical and Translational Radiation Oncology, Aug. 2020.

[34] Holmström P, Hallberg S, Eriksson-Björk T, Lindberg J, Bååthe F*, Davidsen P*, and **Olsson C***. *Insights gained from a systematic reanalysis of a successful model-facilitated change process in healthcare.* Syst Res Behav Sci 2020; sres.2724: 1-11.

[33] **Olsson C,** Lindberg J, Holmström P, Hallberg S, Björk-Eriksson T, and Johansson K-A. *Radiation therapy in Sweden: Past, present, and future perspectives.* IJROBP 2020; 107(1): 6-11.

[32] **Olsson C**, Nyholm T, Wieslander E, Onjukka E, Gunnlaugsson A, Reizenstein J, Johnsson S, Kristensen I, Skönevik J, Karlsson M, Isacsson U, Flejmer A, Abel E, Nordström F, Nyström L, Bergfeldt K, Zackrisson B, and Valdman A. *Initial experience with introducing national guidelines for CT- and MRI-based delineation of organs at risk in radiotherapy.* PhiRO 2019:11:88-91.

[31] Hedström J, Tuomi L, Finizia C, **Olsson CE**. *Identifying organs at risk for radiation-induced late dysphagia in head and neck cancer patients.* ctRO 2019:19:87-95.

[30] Waldenström A-C, Bergmark K , Michanek A , Hashimid F, Rossi Norrlund R , **Olsson CE**, Gjertsson P , Leonhardt H. *A comparison of two imaging modalities for detecting lymphatic nodal spread in radiochemotherapy of locally advanced cervical cancer.* phiRO 2018:8:33-37.

[29] **Olsson CE**, Jackson A, Deasy JO, and Thor M. *A systematic post-QUANTEC review of tolerance doses for late toxicity after prostate cancer radiotherapy.* Int J Radiat Oncol Biol Phys 2018; 102(5):1514.

[28] Beasley W, Thor M, McWilliam A, Green A, Mackay R, **Olsson CE**, Pettersson N, Finizia C, Estilo C, Riaz N, Lee NY, Deasy JO, and van Herk M., *Image-based data mining to probe dosimetric correlates of radiation-induced trismus.* Int J Radiat Oncol Biol Phys. 2018; 102(4):1330-1338.

[27] Hedström J, Tuomi L, Finizia C, and **Olsson CE**. *Correlations between patient-reported dysphagia screening and penetration-aspiration scores in Head and Neck Cancer patients post-oncological treatment.* Dysphagia 2018; 33(2):206-2015.

[26] Thor M*, **Olsson CE***, Oh JH, Hedström J, Pauli N, Johansson M, Deasy JO, and Finizia C. *Temporal patterns of patient-reported trismus and associated mouth-opening distances in radiotherapy for head and neck cancer: A prospective cohort study.* Clinical Otolaryngology 2018; 43(1):22-30.

[25] Oh JH, Thor M, **Olsson C**, Skokic V, Jörnsten R, Alsadius D, Pettersson N, Steineck G, and Deasy J. *A factor analysis approach for clustering patient-reported outcomes.* Methods Inf Med, 2016; 55(5):431-439.

[24] Nyholm T*, **Olsson C***, Agrup M, Björk P, Björk-Eriksson T, Gagliardi G, Grinaker H, Gunnlaugsson A, Gustafsson A, Gustafsson M, Johansson B, Johnsson S, Karlsson M, Kristensen I, Nilsson P, Nyström L, Onjukka E, Reizenstein J, Skönevik J, Söderström K, Valdman A, Zackrisson B, Montelius A. *A national approach for automated collection of standardized and population-based radiation therapy data in Sweden*. Radiother Oncol, 2016; 119(2):344-50.

[23] Lind H, Alevronta E, Steineck G, Waldenström A-C, Nyberg T, **Olsson C**, Wilderäng U, Dunberger G, al-Abany M, and Åvall-Lundqvist E. *Defecation into clothing without forewarning and mean radiation dose to bowel and anal-sphincter among gynecological cancer survivors*. Accepted for publication in Acta Oncol, 2016; 55(11): 1285-1293.

[22] Olsson B, Lautner R, Andreasson U, Öhrfelt A, Portelus E, Bjerke M, Höltää M, Rosén C, **Olsson C**, Strobel G, Wu E, Dakin K, Petzold M, Blennow K, and Zetterberg H. *CSF and blood biomarkesr for Alzheimer's disease: a systematic review and meta-analysis*. Lancet Neurology, 2016; 15(7):673-84.

[21] Alevronta E, Åvall-Lundqvist E,, al-Abany M, Nyberg T, Lind H, Waldenström A-C, **Olsson C**, Dunberger G, Bergmark K, Steineck G, and Lind B.K. *Time-dependent dose-response relation for absence of vaginal elasticity after gynecological radiation therapy*. Radiother Oncol, 2016; 120(3): 537-541.

[20] **Olsson CE***, Thor M*, Oh JH, Petersen SE, Alsadius D, Bentzen L, Pettersson N, Muren L, Høyer M, Steineck G, and Deasy JO. *Urinary bladder dose-response relationships for patient-reported genitourinary morbidity domains following prostate cancer radiotherapy*. Radiother Oncol, 2016; 119(1):117-22.

[19] Pauli N, **Olsson CE**, Pettersson N, Johansson M, Haugen H, Wilderäng U, Steineck G, and Finizia C. *Risk structures for radiation-induced trismus in head and neck cancer.* Acta Oncol, 2016; 55(6): 788-92.

[18 a+b] **Olsson CE***, Thor M*, Oh JH, Alsadius D, Pettersson N, Muren L, Deasy JO., and Steineck G. [a] *Radiation dose to the penile structures and patient-reported sexual dysfunction in long-term prostate cancer survivors* including [b] *Response and Rebuttal to Editorial comment.* J Sex Med, 2015:12(12):2388-97 and 2015:12(12):2400

[17] **Olsson CE**, Alsadius D, Pettersson N, Tucker SL, Wilderäng U, Johansson K-A, and Steineck G. *Patient-reported sexual toxicity after radiation therapy in long-term prostate cancer survivors.* Br J Ca 2015:113:802-808.

[16] **Olsson CE***, Thor M*, Oh JH, Petersen SE, Alsadius D, Bentzen L, Pettersson N, Muren L, Waldenström A-C, Høyer M, Steineck G, and Deasy JO., *Relationships between dose to the gasto-intestinal tract and patient-reported symptom domains after radiotherapy for localized prostate cancer*. Acta Oncol. 2015 Oct;54(9):1326-34.

[15] Alsadius D, **Olsson C**, Pettersson N, Tucker S Wilderäng U, and Steineck G. *Patient-reported gastrointestinal symptoms among long-term survivors after radiation therapy for prostate cancer.* Radiotherapy and Oncology 2014 Aug;112(2):237-43.

[14] **Olsson C***, Thor M*, Liu M, Moissenko V, Petersen SE, Høyer M, Apte A, and Deasy JO. *Influence of image slice thickness on rectal dose-response relationships following radiotherapy of prostate cancer.* Phys Med Biol. 2014 Jul 21;59(14):3749-59.

[13] Pettersson N, Johansson K-A, Alsadius D, Tucker S, Steineck G, and **Olsson C**,. *A method to estimate composite doses for organs at risk in prostate cancer treated with EBRT in combination with HDR BT*. Acta Oncol. 2014 Jun;53(6):815-21.

[12] Alsadius D, **Olsson C**, Wilderäng U, and Steineck G. *Partnership status affects the association between gastrointestinal symptoms and quality of life after radiation therapy for prostate cancer*. Acta Oncol. 2014 Mar;53(3):378-84.

[11] Alsadius D, **Olsson C**, Pettersson N, Tucker S Wilderäng U, and Steineck G. *Perception of body odor - an overlooked consequence of long-term gastrointestinal and urinary symptoms after radiation therapy for prostate cancer.* J Cancer Surviv. 2013 Dec;7(4):652-8.

[10] **Olsson CE**, Pettersson N, Alsadius D, Wilderäng U, Tucker S L, Johansson K-A, and Steineck G. *Patient-reported genitourinary toxicity for long-term prostate cancer survivors treated with radiation therapy*. Br J Cancer 2013 108:1964-1970.

[9] Alevronta E, Lind H, al-Abany M, Waldenström A-C, **Olsson C**, Dunberger G, Mavroidis P, Nyberg T, Johansson K-A, Åvall-Lundqvist E, Steineck G, and Lind B K. *Dose-response relationships for an atomized symptom of fecal incontinence after gynaecolological radiotherapy.* Acta Oncol. 2013, May;52(4):719-26.

[8] Pettersson N, **Olsson C**, Tucker S, Alsadius D, Wilderäng U, Johansson K-A, and Steineck G. *Urethral pain among prostate cancer survivors one to fourteen years after radiation therapy.* Int J Radiat Oncol Biol Phys. 2013 Jan 1;85(1):e29-37.

[7] Jernås M, Malmeström C, Axelsson M, **Olsson C**, Nookaew I, Wadenvik H, Zetterberg H, Blennow K, Lycke J, Rudemo M, and Olsson B. *MS risk genes are transcriptionally regulated in CSF leukocytes at relapse.* Mult Scler. 2013 Apr; 19(4):403-10.

[6] Waldenström A-C, **Olsson C,** Wilderäng U, Lind H, al-Abany M, Dunberger G, Tucker S, Åvall-Lundqvist E, Johansson K-A, and Steineck G. *Relative importance of hip and sacral pain among long-term gynecological cancer survivors treated with pelvic radiotherapy and their relationships to mean absorbed doses.* Int J Radiat Oncol Biol Phys. 2012 Oct 1;84(2):428-36.

[5] Lind H, Waldenström AC, Dunberger G, al-Abany M, Alevronta E, Johansson KA, Olsson C, Nyberg T, Wilderäng U, Steineck G, Åvall-Lundqvist E. *Late symptoms in long-term gynaecological cancer survivors after radiation therapy: a population-based cohort study.* Br J Cancer. 2011 Sep 6;105(6):737-45.

[4] Olsson C and Kemp G. *Standardizing radiation oncology data for future modelling of side effects after radiation therapy.* In Proceedings of CIKM 2011 Workshop: Managing Interoperablity and compleXity in Health Systems (MIXHS'11), October 28, 2011, Glasgow, Scotland, UK., 67-70.

[3] **Olsson C*,** Waldenström A-C*, Wilderäng U, Lind H, al-Abany M, Dunberger G, Åvall-Lundqvist E, Johansson K-A, and Steineck G. *Pain and mean absorbed dose to the pubic bone after radiotherapy among gynaecological cancer survivors.* International Journal of Radiation Oncology Biology Physics Volume 80, Issue 4, 15 July 2011, Pages 1171-1180.

[2] **Olsson C** and Johansson K-A *Do we need fractionation-corrected doses in sequential two-phase treatments? A quantification of dose differences between non-corrected and corrected combined non-uniform dose distributions in normal tissue*. Journal article. Acta Oncologica 2010 **49**(8):1253-60.

[1] Larsson T, Marklund J, **Olsson C,** and Patriksson M. *Convergent Lagrangian heuristics for nonlinear minimum cost network flows.* European Journal of Operational Research, 2008, vol. 189, no. 2, pp. 324-346.

9. Peer-reviewed conference contributions *equal contribution between authors

[36] Holmström P, Björk-Eriksson T, Fredrik Bååthe F*, Davidsen P*, **Olsson C***. *Insights gained from a reanalysis of five model-facilitated change processes in healthcare based on action research approaches*. International System Dynamics Conference 2020.

[35] Smith F och **Olsson C**. @pp.ly – ett webbaserat verktyg för att underlätta skrivandet av forskningsansökningar. Högskolepedagogisk konferens i Göteborg (HKG) 2019.

[34] Lindberg J, Holmström P, Hallberg S, Björk-Eriksson T, and **Olsson CE.** *An analytical approach to aggregate patient workflows for system dynamics modelling of radiotherapy.* ASTRO/IJROBP 2019.

[33] **Olsson CE**, Nyholm T, Wieslander E, Zackrisson B, and Valdman A. *Initial Experience with Introducing National Swedish Guidelines for CT- and MRI-based Delineation of Organs at Risk in Radiotherapy: The STRONG Project.* ASTRO/IJROBP 2019.

[32] Lindberg J, Holmström P, Hallberg S, Björk-Eriksson T, and **Olsson CE.** *Healthcare professionals' views on work-related issues at Swedish radiotherapy departments.* ASTRO/IJROBP 2019.

[31] Lindberg J, Holmström P, Hallberg S, Björk-Eriksson T, and **Olsson CE**. *An analytical approach to aggregate patient workflows for system dynamics modelling of radiotherapy.* ESTRO 38/RO 2019.

[30] Lindberg J, Holmström P, Hallberg S, Björk-Eriksson T, and **Olsson CE**. *An analytical approach to aggregate patient workflows for system dynamics modelling of radiotherapy*. World Multiconference on Systemics, Cybernetics and Informatics (WMSCI) 2019.

[29] **Olsson CE** and Thor M. *A systematic review and quantitative synthesis of tolerance doses for distinct late toxicities.* ESTRO 37/RO 2018.

[28] Waldenström A-C., Bergmark K., Michanek A, Hashimid F, **Olsson CE**., Gjertsson P, and Leonhardt H. *Ph.D.FDG-PET/CT and MRI in definitive radio-chemotherapy for locally advanced uttering cervical cancer.* ESTRO 37/RO 2018.

[27] Lindberg J, Holmström P, Hallberg S, Björk-Eriksson T, and **Olsson C**. *Temporal variations in scheduling data of a modern radiotherapy department.* Øresund workshop on Radiotherapy, 2018.

[26] Thor M*, **Olsson CE***, Oh JH, Pauli N, Pettersson N, Finizia C, and Deasy JO. *Is radiation-induced trismus a time-dependent masticatory structure story?* ESTRO 36/RO 2017.

[25] Thor M*, **Olsson CE***, and Deasy JO. *Tolerance doses for detailed late effects after prostate cancer radiotherapy – a post-QUANTEC review.* ESTRO 36/RO 2017

[24] Thor M*, **Olsson CE***, Oh JH, Pauli N, Johansson M, Deasy JO, and Finizia C. *What to ask/when to act – patient-reported trismus and mouth-opening distances in head and neck radiotherapy.* Int. J. Radiation Oncology Biol Phys., 2016.

[23] **Olsson CE***, Thor M*, Oh JH, Hedström J, Pauli N, Deasy JO, and Finizia C. *Temporal patterns of patient-reported trismus and associated mouth-opening distances in RT of HNC.* Radiotherapy and Oncology 2016.

[22] Thor M*, **Olsson CE***, Hansen S, Petersen PM, Lindberg H, Kempel MM, Dysager L, Høyer M, Deasy JO, and Bentzen L. *Comparing patient- and physician-assessed GI effects in locally advanced prostate cancer radiotherapy.* Radiotherapy and Oncology 2016.

[21] **Olsson C**, Köroglu D, Pauli N, Finizia C, and Pettersson N. *Evaluating the deep portion of the masseter muscle as a critical substructure for radiation induced trismus in head and neck cancer*. Int. J. Radiation Oncology Biol Phys. 2015:93:3(Suppl.1), p. S54 [Oral presentation]

[20] Thor M*, **Olsson C***, Deasy JO, Alsadius D, Pettersson N, Waldenström A-C, Steineck G, and Oh JH. *Dose Response Relationships for Four Gastrointestinal Symptom Groups in Prostate Cancer Radiation Therapy.* Int. J. Radiation Oncology Biol Phys. 2015:93:3(Suppl.1), p. S52 [Oral presentation]

[19] Thor M, **Olsson C**, Jung H O, Hansen S, Petersen P M, Lindberg H, Kempel H H, Dysager L, Høyer M, Deasy JO, and Bentzen L. *Temporal pattern of patient-reported symptom groups after prostate cancer radiotherapy.* Radiotherapy and Oncology 2015:115(S1):S362.

[18] Pauli N, **Olsson C**, Pettersson N, Johansson M, Haugen Cange H, Wilderäng U, Steineck G, and Finizia C. *Dose to the masseter muscle predicts radiation-induced trismus in head and neck cancer.* Radiotherapy and Oncology 2015:115(S1):S465.

[17] Thor M*, **Olsson C***, Jung H O, Petersen S E, Alsadius D, Deasy JO, and Steineck G. *Corpora cavernosa dose and patient-reported sexual dysfunction in prostate cancer radiotherapy?* Radiotherapy and Oncology 2015:115(S1):S469.

[16] Thor M*, **Olsson C***, Jung H O, Petersen S E, Alsadius D, Høyer M, Pettersson N, Bentzen L, Deasy J O, Muren L P, and Steineck G. *Predicting patient-reported genitourinary toxicity after radiotherapy for prostate cancer.* Radiotherapy and Oncology 2015:115(S1):S476.

[15] **Olsson C***, Thor M*, Jung H O, Petersen S E, Alsadius D, Høyer M, Pettersson N, Waldenström A-C, Bentzen L, Deasy J O, Muren L P, and Steineck G. *Is the anal sphincter a key structure for gastrointestinal toxicity in prostate cancer radiotherapy?* Radiotherapy and Oncology 2015:115(S1):S467.

[14] **Olsson C***, Thor M*, Jung H O, Petersen S E, Alsadius D, Høyer M, Pettersson N, Bentzen L, Deasy J O, Muren L P, and Steineck G. *Identifying groups of patient-reported gastrointestinal symptoms using factor analysis.* Int. J. Radiation Oncology Biol Phys., 2014.

[13] Johansson M, Mattsson I, Wilderäng U, Steineck G, Alsadius D*, and **Olsson C***. *Genitourinary symptoms, well-being and quality of life after radiotherapy for prostate cancer.* Radiotherapy and Oncology, 2014.

[12] **Olsson C***, Thor M*, Apte A, Liu M, Moissenko V, and Deasy JO. *Influence of image slice thicknesses on rectal dose response relationships following prostate cancer radiotherapy.* Radiotherapy and Oncology, 2014.

[11] **Olsson C***, Thor M*, Petersen S E, Alsadius D, Hoyer M, Pettersson N, Benzen L, Oh J H, Deasy JO, Muren L P, and Steineck G. *Identifying relationships between patient-reported outcomes in multiple radiotherapy cohorts.* Radiotherapy and Oncology, 2014.

[10] **Olsson C**, Pettersson N, Alsadius D, Wilderäng U, Tucker S L, Johansson K-A, and Steineck G. *Patient-reported urinary incontinence after external beam radiation therapy for prostate cancer and its relation to absorbed and fractionation-corrected dose*. Radiotherapy and Oncology, 2013.

[9] **Olsson** C*, Alsadius D*, Wilderäng U and Steineck G. *Relationships between rectal doses and patient-reported late gastrointestinal toxicity after prostate cancer radiation therapy.* Int. J. Radiation Oncology Biol Phys., 2013. [Oral presentation]

[8] **Olsson C**, Pettersson N, Alsadius D, Wilderäng U, Tucker S, Johansson K-A and Steineck G. *Patient-reported urinary incontinence after external beam radiation therapy for prostate cancer and its relation to absorbed and fractionation-corrected dose*. Radiotherapy and Oncology, 2013.

[7] **Olsson C**, Waldenström A-C, Wilderäng U, Alevronta E, Dunberger G, Lind H, al-Abany M, Johansson K-A, Åvall-Lundqvist E, and Steineck G. *The Reference for Self-reported Complication Data – Reflections from the Swedish Program on Atomized Symptoms after Cancer Treatments (SPASACT).* Int. J. Radiation Oncology Biol Phys., 2012.

[6] **Olsson C**, Waldenström A-C, Lind H, Alevronta E, al-Abany M, Pettersson N, Dunberger G, Åvall-Lundqvist E, Steineck G, and Johansson K-A. *Dose-volume response analysis of the pubic bone based on pain after pelvic irradiation among gynaecological cancer survivors.* Radiotherapy and Oncology, 2011, Vol 98, S 28.

[5] Alevronta E, Lind H, al-Abany M, Waldenström A-C, **Olsson C**, Dunberger G, Mavroidis P, Onelöv E, Nyberg T, Johansson K.-A, Åvall-Lundqvist E, Steineck G, and Lind BK. *Dose Response of the Sigmoid in Radiotherapy of Gynecological Cancer after varying follow up times*. Radiotherapy and Oncology, 2011, Vol 98, S22.

[4] **Olsson C**, Berglund M, Nilsson P, Zackrisson B, and Johansson K-A. *Comparison of non-corrected and fraction-corrected dose distributions in normal tissue after sequential two-phase external beam radiation therapy of head and neck cancer*. Int. J. Radiation Oncology Biol Phys., 2011, Vol, 78(3) S704.

[3] Alevronta E, Lind H, al-Abany M, Waldenström,A-C, **Olsson C**, Dunberger G, Johansson K-A, Åvall-Lundqvist E, Steineck G, and Lind B. *Dose and volume response of the sigmoid in radiotherapy of gynecological cancer.* Int. J. Radiation Oncology Biol Phys., 2011, Vol, 78(3) S706.

[2] **Olsson C***, Waldenström A-C*, Olofsson U, Lind H, al-Abany M, Dunberger G, Åvall-Lundqvist E, Johansson K-A, and Steineck G. *Dose-dependent pain in the pubic bone after radiotherapy*. Radiotherapy and Oncology, 2008, Vol 88(2), p 1444.

[1] **Olsson C** and Johansson K-A. Treatment plan evaluation: *Influence of the spatial dose distribution and the fractionation effect in multiple phases radiotherapy.* Radiotherapy and Oncology, 2008, Vol 88(2), p 1510.

10. Review articles, book chapters, books, other written material

[9] **Olsson C** och Valdman A. *STRÅNG*. Sjukhusfysikern 2019:3.

[8] Johansson G, **Olsson C**, Smith F, Edegran M och Björk-Eriksson T. *Datoriserad granskning av mammografiundersökningar inom screeningverksamheten för bröstcancer i NU-sjukvården.* 2019. [**Kvalitets- och utvecklingsarbete inom läkares specialisttjänstgöring**]

[7] Valdman A och **Olsson C**. *Utbildningarna måste anpassas till en vård som allt mer styrs av AI.* Dagens Medicin 2018. web: https://www.dagensmedicin.se/ [**Debate**]

[6] **Olsson C** and Thor M. *Toleransdoser för riskorgan och gastrointestinala biverkningar i samband med strålbehandling för prostatacancer.* BestPractice Hematologi/Onkologi 4 Mar 2019. web: https://bestprac.se/2019/03/04/toleransdoser-for-riskorgan-och-gastrointestinala-biverkningar-vid-stralbehandling-for-prostatacancer/ [**Article**]

[5] Rapport 2016: Nationella Arbetsgruppen till Stöd för Klinisk Cancerforskning (NASKC), ordf. **Olsson C** [Report 2016: The National Workning group in Support of Clinical Cancer research (NWSCC), chair **Olsson C**] Regionala Cancercentrum (RCC) i samverkan, Nov. 2016 [**Report**]

[4] Den nationella referensgruppen inkl. **Olsson C**. *En standardiserad svensk nomenklatur för strålbehandling* [*A standardized Swedish naming convention for radiation therapy*], Forskning 2016:18 [Research 2016:20], Strålsäkerhetsmyndigheten http://www.stralsakerhetsmyndigheten.se/Global/Publikationer/Rapport/Stralskydd/2016/SSM_Rapport_2016_18_webb.pdf [http://www.stralsakerhetsmyndigheten.se/Global/Publikationer/Rapport/Stralskydd/2016/Rapport_2016_20_webb.pdf]

[3] **Olsson C.** *Do Swedish Higher Educational Programs in Medical Physics Provide a Sufficient Basis for Students to Conduct a Master's project in Predictive Modelling of Normal Tissue Response to Ionizing Radiation?* Pedagogical development and interactive learning (PIL), University of Gothenburg, Dec 2015. web: http://pil.gu.se/digitalAssets/1558/1558752_olsson-programs-medical-physics-ny.pdf [**Texts on Teaching and Learning in Higher Education**]

[2] **Olsson C.** *Radiation Oncology Data and Modelling Side Effects after Radiation Therapy.* Department of Computer Science and Engineering, Chalmers University of Technology, Göteborg, Sweden, Dec. 2010. [**Doctoral thesis]**

[1] **Olsson C.** *Predicting normal tissue complications after external beam radiation therapy*. Department of Computer Science and Engineering, Chalmers University of Technology and Gothenburg University, Göteborg, Sweden, Dec. 2010. [**Licentiate thesis]**

11. Open access computer programs or databases that you have developed/participated in developing

[4] @pp.ly: ett webbaserat stöd för att söka forskningsanslag. Pilot version 2019.

[3] NTCPCalculator: software written in MATLAB that fits observed toxicity data to common NTCP-models using an exhaustive grid search. 2008.

[2] DvhReader: software written in Java that extracts desired information from dose-volume histograms exported from the Cadplan or Eclipse treatment planning system. 2008.

[1] VDM+: software written in Java for adding 3D dose distributions in a radiobiologically sound manner. 2008.

[1]-[3] available upon request; [4] available via https://applyweb.azurewebsites.net/