

Vineesh Indira Chandran, Ph.D

Department of Molecular Medicine

University of Southern Denmark

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EDUCATION

- 03/10/2008 – 12/13/2012 **Ph.D (Direct transfer from Master of Science (Biotechnology))**
Illawarra Health and Medical Research Institute (IHMRI)
School of Biological Sciences
University of Wollongong, NSW, Australia.
Main Supervisor – Prof. Marie Ranson
Thesis title – Development of targeted anticancer agents using novel N-alkylisatin derivatives.
- 11/01/1997 – 04/20/2000 **Bachelor of Science (Major: Biochemistry)**
Government College, Kariavattom, Trivandrum, Kerala, India.

ACADEMIC EMPLOYMENT

- 03/15/2020 – present **Senior Post-Doctoral Researcher**
Department of Molecular Medicine, University of Southern Denmark, Denmark.
- 08/01/2019 – 12/12/2019 **Post-Doctoral Research Fellow**
Clinical Research Division, Fred Hutchison Cancer Research Center, USA.
- 08/15/2014 – 01/15/2019 **Postdoctoral Researcher**
Department of Clinical Sciences, Division of Oncology and Pathology, Lund University, Sweden.

MAJOR CAREER BREAKS AFTER PH.D

- 12/18/2013 – 08/13/2014 Parental break (34 weeks)
- 12/15/2012 – 04/18/2013 Family care (17,5 weeks)

OTHER SCIENTIFIC EMPLOYMENT

- 04/20/2013 – 12/17/2013 **Proteomics Training – Mass Spectrometry Protocols/Analysis Tools**
Department of Molecular Biology and Genetics, Koç University, Turkey.
- 02/21/2009 – 11/30/2012 **Teaching Assistant**
IHMRI, School of Biological Sciences, University of Wollongong, Australia.

NON-ACADEMIC EMPLOYMENT

- 2021-till present **Founder & Managing Director**
Personlig Healthcare Pvt. Ltd., Trivandrum, Kerala, India
- 2000-2008 **Medical Language Specialist**
Webahn Internet Solutions Pvt. Ltd., Trivandrum, Kerala, India.
Welcare Diagnostic and Treatment Centre, Muscat, Oman.

ACADEMIC AWARDS & SCHOLARSHIPS

- 08/15/2016 – 08/14/2018 **Postdoctoral grant from Viveca Jeppsson Foundation (512.428 DKK)**
Lund University, Sweden
- 08/15/2014 – 08/14/2016 **Lund University Postdoctoral Scholarship (458.582 DKK)**
Lund University, Sweden.
- 01/01/2009 – 12/31/2011 **International Postgraduate Tuition Award (Ph.D) (194.042 DKK)**
University of Wollongong, Australia.
- 01/01/2011 – 12/31/2011 **Matching Postgraduate Research Scholarship (Ph.D) (48.196 DKK)**
University of Wollongong, Australia.

NON-ACADEMIC GRANTS

- 2019 *Startup grant*
PERSONLIG HEALTHCARE program (130.047 DKK)
Lund University Innovation/VINNOVA, Sweden.

MANAGEMENT EXPERIENCE

Independently led 4 minor research projects (Bachelor students, 4 projects completed) with student management role mainly involving conceiving the project, training & monitoring of daily experimental progress and advice on generation of project reports. Co-supervisor for 2 major research projects with Master students, 1 Ph.D student (completed) and 1 Ph.D student ongoing with student management role involving contributing to the project idea and training of experimental protocols & monitoring the project progress.

MAJOR RESEARCH INTERESTS

- Exploring the role of exosomes as a liquid biopsy tool and development of novel exosome-based drug delivery platform.
- Understanding the role of exosome-mediated communication in tumor progression.
- Understanding the role of exosome-mediated communication in inflammatory pathologies.
- Understanding the role of hypoxic niche cellular heterogeneity in the resistance to targeted drugs.

RESEARCH/STUDY ABROAD

- 03/10/2008 – 12/13/2012 Ph.D, **University of Wollongong (Australia)**, Prof. Marie Ranson and Dr. Kara Vine.
- 04/20/2013 – 12/17/2013 Short-term training in quantitative proteomics, **Koç University (Turkey)**, Assistant Professor Nurhan Özlü.
- 08/15/2014 – 01/15/2019 Postdoctoral training, **Lund University (Sweden)**, Prof. Dr. Mattias Belting.
3 first author publications
4 co-author publications
Co-supervisor for 2 MSc students (completed).
- 08/01/2019 – 12/12/2019 Postdoctoral training, **Fred Hutchinson Cancer Research Centre (USA)**, Assistant Prof. Mark Headley.
Optimization of Multi-Photon Intravital Imaging for exosome analysis
Co-advisor for a Ph.D student (ongoing).

INTERNATIONAL RESEARCH COLLABORATIONS

- Assistant Member Mark Headley, Fred Hutchinson Cancer Research Centre (USA).
Intravital imaging of exosomes in lung metastasis.
08/01/2019 – present – **Ongoing collaboration. Involved as a Co-advisor/mentor for a Ph.D student.**
- Prof. Dr. Mattias Belting, Lund University (Sweden).
Exosome-mediated regulation of hypoxic solid tumors.
02/05/2019 – present – **Ongoing collaboration. One publication as co-author.**
- Prof. Marie Ranson and Dr. Kara Vine, University of Wollongong (Australia).
Plasminogen activation system crosstalk in tumor metastasis.
05/11/2013 – 12/22/2013 – **One publication as first and corresponding author.**
- Dr. Phil. Serenella Eppenberger-Castori, University Hospital Basel (Switzerland).
Tissue Biobank/Biostatistics.
06/03/2013 – 11/07/2013 – **One publication as first and corresponding author.**

TEACHING & SUPERVISION

- 2009 – present More than 1000 hours of teaching experience.
- 04/20/2021 Introduction to teaching at SDU – new teachers (Level C, SDU's pedagogical competence profile).
- 08/24/2021 Assessed qualified for Assistant Professorship, Department of Clinical Medicine, Aarhus University.
- 08/02/2021 Assessed qualified for Assistant Professorship, Department of Biomedicine Aalborg University.
- 11/12/2020 Assessed qualified for Assistant Professorship, Department of Molecular Medicine, University of Southern Denmark.

- 2009 – present Co-supervised 1 Ph.D, 1 MSc, 1 MSc Erasmus, and 4 BSc students.
- 02/21/2009 – 11/30/2012 Teaching Assistant, University of Wollongong.

TRACK RECORD

- Total 11 peer-reviewed publications, Citations 310, H-index 9, i10-index 8 – Google Scholar, September 2021.
5 first author publications & 1 first author publication under revision in *Journal of Hepatology*.
3 corresponding author publications (1 publication as corresponding and senior author).
7 publications without Ph.D supervisor (including 3 first author and 2 corresponding author publications).

PATENTS

- **Indira Chandran V***, Wernberg CW, Lauridsen MM, Skytthe MK, Moestrup SK, Krag A, Graversen JH*, “Use of plasma or serum soluble TREM2 as diagnostic marker of NASH” EP21176575, 2021 (European Patent Application-filed). *Main contributors.

PUBLICATIONS

1. **Vineesh Indira Chandran***, Charlotte Wilhelmina Wernberg*, Mette Munk Lauridsen, Maria Kløjgaard Skytthe, Camilla Dalby Hansen, Frederik Tibert Larsen, Majken Storm Siersbæk, Tina Di Caterino, Holger Jon Møller, Kim Ravnskjaer, Lars Grøntved, Maja Sofie Thiele, Søren Kragh Moestrup, Aleksander Krag, Jonas Heilskov Graversen. Plasma soluble TREM2 for non-invasive identification of NASH, a biomarker discovery study. *Journal of Hepatology* 2021 (Submitted 03/08/2021; under revision). *Contributed equally. **Impact factor 25.083.**
2. **Vineesh Indira Chandran***, Ann-Sofie Månsson, Magdalena Barbachowska, Myriam Cerezo-Magaña, Björn Nodin, Bharat Joshi, Neelima Koppada, Ola M. Saad, Oleg Gluz, Karolin Isaksson, Signe Borgquist, Karin Jirstrom, Ivan Robert Nabi, Helena Jernstrom, Mattias Belting*. Hypoxia attenuates trastuzumab uptake and trastuzumab-emtansine (T-DM1) cytotoxicity through redistribution of phosphorylated caveolin-1. *Molecular Cancer Research* 2020; 18(4):644–656. PMID:31900313. *Corresponding authors. **Impact factor 5.852. Featured in Highlights of this issue and figure selected for cover page.**
3. **Vineesh Indira Chandran***, Charlotte Welinder, Kelin Gonçaves de Oliveira, Myriam Cerezo-Magaña, Ann-Sofie Månsson, Gyorgy Marko-Varga, Mattias Belting. Global extracellular vesicle proteomic signature defines U87-MG glioma cell hypoxic status with potential implications for non-invasive diagnostics. *Journal of Neuro-Oncology* 2019; 144(3): 477–488. PMID: 31414377. *Corresponding author. **Impact factor 4.13.**
4. **Vineesh Indira Chandran**, Charlotte Welinder, Ann-Sofie Månsson, Svenja Offer, Eva Freyhult, Maria Pernemalm, Sigrid Lund, Shona Pedersen, Janne Lehtiö, Gyorgy Marko-Varga, Maria Johansson, Elisabet Englund, Pia Sundgren, and Mattias Belting. Ultrasensitive immunoprofiling of plasma extracellular vesicles identifies syndecan-1 as a potential tool for minimally invasive diagnosis of glioma. *Clinical Cancer Research* 2019; 25(10): 3115–3127. PMID: 30679164. **Impact factor 12.531. Couchman J: F1000Prime Recommendation of [Indira Chandran V et al., Clin Cancer Res 2019]. In F1000Prime, 22 Feb 2019; 10.3410/f.734925594.793556042.**
5. Svenja Offer*, Julien A Menard*, Julio Enriquez*, Kelin G de Oliveira, **Vineesh Indira Chandran**, Maria C Johansson, Anna Bång-Rudenstam, Peter Siesjö, Anna Ebbesson, Ingrid Hedenfalk, Pia C. Sundgren, Anna Darabi, and Mattias Belting. Extracellular lipid loading augments hypoxic paracrine signaling and promotes glioma angiogenesis and macrophage infiltration. *Journal of Experimental and Clinical Cancer Research* 2019; 38: 241. PMID: 31174567. *Contributed equally. **Impact factor 11.161.**
6. Helena C. Christianson*, Julien A. Menard*, **Vineesh Indira Chandran**, Erika Bourseau-Guilmain, Dmitry Shevela, Jon Lidfeldt, Ann-Sofie Månsson, Silvia Pastorekova, Johannes Messinger and Mattias Belting. Tumor antigen glycosaminoglycan modification regulates antibody-drug conjugate delivery and cytotoxicity. *Oncotarget* 2017; 8(40): 66960–66974. PMID: 28978009. *Contributed equally. **Impact factor 5.168.**
7. Erika Bourseau-Guilmain, Julien A. Menard, Eva Lindqvist, **Vineesh Indira Chandran**, Helena C. Christianson, Myriam Cerezo Magaña, Jon Lidfeldt, Gyorgy Marko-Varga, Charlotte Welinder & Mattias Belting. Hypoxia regulates global membrane protein endocytosis through caveolin-1 in cancer cells. *Nature Communications* 2016; 7:11371. PMID: 27094744. **Impact factor 14.919.**

8. Julien A. Menard, Helena C. Christianson, Paulina Kucharzewska, Erika Bourseau-Guilmain, Katrin Svensson, Eva Lindqvist, **Vineesh Indira Chandran**, Lena Kjellén, Johan Bengzon, Maria C. Johansson, Charlotte Welinder & Mattias Belting. Metastasis stimulation by hypoxia and acidosis-induced extracellular lipid uptake is mediated by proteoglycan-dependent endocytosis. *Cancer Research* 2016; 76(16): 4828–40. PMID: 27199348. **Impact factor 12.701.**
9. **Vineesh Indira Chandran***, Serenella Eppenberger-Castori, Thejaswini Venkatesh, Kara L. Vine, Marie Ranson. HER2 and uPAR cooperativity contribute to metastatic phenotype of HER2-positive breast cancer. *Oncoscience* 2015; 2(3): 207–24. *Corresponding author. PMID: 25897424. **Impact factor 3.16.**
10. Kara L. Vine, Sergei Lobov, **Vineesh Indira Chandran**, Nathaniel L. Harris, and Marie Ranson. Improved pharmacokinetic and biodistribution properties of the selective urokinase inhibitor PAI-2 (SerpineB2) by site-specific PEGylation: implications for drug delivery. *Pharmaceutical Research* 2015; 32(3): 1045–54. PMID: 25231010. **Impact factor 4.2.**
11. **Vineesh Indira Chandran**, Lidia Matesic, Julie M. Locke, Danielle Skropeta, Marie Ranson, and Kara L. Vine. Anti-cancer activity of an acid-labile *N*-alkylisatin conjugate targeting the transferrin receptor. *Cancer Letters* 2012; 316(2): 151–156. PMID: 22115965. **Impact factor 8.679.**
12. Kara L. Vine, **Vineesh Indira Chandran**, Julie M. Locke, Lidia Matesic, Jodi Lee, Danielle Skropeta, John B. Bremner, and Marie Ranson. Targeting Urokinase and the Transferrin Receptor with Novel, Anti-Mitotic *N*-Alkylisatin Cytotoxin Conjugates Causes Selective Cancer Cell Death and Reduces Tumour Growth. *Current Cancer Drug Targets* 2012; 12(1): 64–73. PMID: 22111834. **Impact factor 3.428.**

CONFERENCES – ORAL & POSTER PRESENTATIONS

1. **Vineesh Indira Chandran**, Charlotte Wilhelmina Wernberg, Mette Munk Lauridsen, Maria Kløjgaard Skytthe, Camilla Dalby Hansen, Stine Marie Præstholm, Frederik Tibert Larsen, Majken Storm Siersbæk, Tina Di Caterino, Holger Jon Møller, Kim Ravnskjær, Maja Sofie Thiele, Lars Grøntved, Søren Kragh Moestrup, Aleksander Krag, Jonas Heilskov Graversen, Development of druggable targets, non-invasive biomarkers and therapeutic targets in NASH, *Svaninge Seminar* (2021), Svaninge Hills, Faaborg, Denmark. **(Oral presentation).**
2. **Vineesh Indira Chandran**, Charlotte Wilhelmina Wernberg, Mette Munk Lauridsen, Maria Kløjgaard Skytthe, Stine Marie Præstholm, Frederik Tibert Larsen, Majken Storm Siersbæk, Tina Di Caterino, Holger Jon Møller, Kim Ravnskjær, Maja Sofie Thiele, Lars Grøntved, Søren Kragh Moestrup, Aleksander Krag, Jonas Heilskov Graversen, Development of non-invasive biomarkers and therapeutic targets in NAFLD/NASH, *ATLAS Annual Meeting* (2021), Gl. Avernæs, Odense, Denmark. **(Oral and poster presentation).**
3. **Vineesh Indira Chandran**, Fabio Avolio, Stine Marie Præstholm, Frederik Adam Bjerre, Kim Ravnskjær, Lars Grøntved, Søren Kragh Moestrup, Jonas Heilskov Graversen, Development of druggable targets and antibody-mediated therapeutics against NAFLD/NASH, *ATLAS Annual Meeting* (2020), Gl. Avernæs, Odense, Denmark. **(Oral presentation).**
4. **Vineesh Indira Chandran**, Charlotte Welinder, Ann-Sofie Månsson, Svenja Offer, Eva Freyhult, Maria Pernemalm, Sigrid Lund, Shona Pedersen, Janne Lehtiö, Gyorgy Marko-Varga, Maria Johansson, Elisabet Englund, Pia Sundgren, and Mattias Belting, Ultrasensitive immunoprofiling of plasma extracellular vesicles identifies syndecan-1 as a potential tool for minimally invasive diagnosis of glioma, *Brain Tumor Meeting* (2019), Berlin, Germany. **(Poster presentation).**
5. **Vineesh Indira Chandran**, Charlotte Welinder, Ann-Sofie Månsson, Svenja Offer, Eva Freyhult, Maria Pernemalm, Sigrid Lund, Shona Pedersen, Janne Lehtiö, Gyorgy Marko-Varga, Maria Johansson, Elisabet Englund, Pia Sundgren, and Mattias Belting, Development of plasma extracellular vesicles as a potential tool for non-invasive diagnosis of glioma, *Combined Lund & Uppsala University Brain Tumor Meeting* (2018), Skåne, Sweden. **(Oral & Poster presentation).**
6. Mattias Belting, **Vineesh Indira Chandran**, Exosomes in intercellular communication and as non-invasive liquid biopsy tools, *Nobel Forum Symposium on Extracellular Vesicles* (2018), Karolinska Institute, Stockholm, Sweden **(Invited oral & poster presentation).**
7. Christoffer Nielsen, Kristine R. Sørensen, Kara L. Perrow, **Vineesh Indira Chandran**, Lars H. Engelholm, Marie Ranson, and Niels Behrendt, Exploiting the receptor uPARAP/Endo180 for targeted delivery of anti-cancer drugs to sarcomas and glioblastomas, *25th Lorne Cancer Conference* (2013), Melbourne, Victoria, Australia. **(Poster presentation).**
8. Kara L. Vine, **Vineesh Indira Chandran**, Julie M. Locke, Lidia Matesic, Jodi Lee, Danielle Skropeta, John B. Bremner, and Marie Ranson, Targeting Urokinase and the Transferrin Receptor with Novel, Anti-Mitotic *N*-Alkylisatin Cytotoxin Conjugates Causes Selective Cancer Cell Death and Reduces

Tumour Growth, 24th Lorne Cancer Conference (2012), Melbourne, Victoria, Australia. (**Poster presentation**).

9. **Vineesh Indira Chandran**, Julie M. Locke, Danielle Skropeta, Kara L. Vine, and Marie Ranson, Development of ligand-drug conjugates incorporating a potent *N*-alkylisatin derivative: Potential for use in a novel double targeting strategy against breast cancer, Australian Society for Medical Research (ASMR) NSW Scientific Meeting (2012), Redfern, NSW, Australia. (**Poster presentation**).
10. **Vineesh Indira Chandran**, Kara L. Vine, Marie Ranson, Anti-cancer activity of an acid-labile *N*-alkylisatin conjugate targeting the transferrin receptor, UoW School of Biological Sciences Annual Meeting – Kioloa Retreat (2010), Kioloa, NSW, Australia. (**Oral presentation**).
11. **Vineesh Indira Chandran**, Kara L. Vine, Marie Ranson, HER2 and uPAR cooperativity contribute to metastatic phenotype of HER2-positive breast cancer, Plasminogen Activation System (PAS) Meeting (2009), University of Wollongong, Wollongong, NSW, Australia. (**Meeting co-organizer, Oral presentation**).

PROFESSIONAL ACTIVITIES

- Member, Review board of *Life* Journal, MDPI.
- Member, Review board of e-century Journal.
- Reviewer for Journals including Cancer & Metastasis Reviews, Breast Cancer Research & Treatment, International Journal of Molecular Sciences, American Journal of Translational Research, Oncotarget, and Oncoscience.

PERSONAL DETAILS

Date of Birth	16 th December 1979
Married with 1 daughter	
Nationality	Indian, Sweden permanent resident