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Stephanie Van de Ven

CONTACT INFORMATION

- **Administrative Contact**

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BIO

As Deputy Director of the Canary Center at Stanford for Cancer Early Detection I broadly oversee its operations and research programs. The Canary Center is focused on developing in vitro and in vivo tools for early cancer detection and its research spans the areas of biomarker discovery, development of molecular imaging agents, development of new diagnostic and imaging devices, and mathematical modeling. In my position I facilitate the clinical translation of cancer diagnostic tools and I enable innovative interdisciplinary research. My research expertise includes leading phase I-II clinical trials to evaluate a newly developed optical breast imaging system in combination with a novel imaging agent. I gained valuable experience in clinical translation of medical devices and in testing new imaging agents for the first time in patients. My training as a Radiology resident was instrumental in my decision to focus on cancer early detection research, because it clearly confronted me with the problem that most cancer patients are being diagnosed too late. I expanded my knowledge on biomarker research by developing proteomics assays during my postdoctoral fellowship at Stanford, in conjunction with my continued work in optical and photoacoustic molecular imaging. In my current role, I work with the faculty of the Canary Center and the Molecular Imaging Program at Stanford, and am committed to advancing cancer research by applying my medical training, clinical knowledge, and research expertise to managing collaborative programs and contribute to the success of the Center and its faculty.

INSTITUTE AFFILIATIONS

- Member, Stanford Cancer Institute

EDUCATION AND CERTIFICATIONS

- Postdoctoral Fellow, Stanford University School of Medicine , Molecular Imaging (2014)
- Resident, Meander Medical Center, The Netherlands , Radiology (2011)
- Doctor of Philosophy, Utrecht University, The Netherlands , Radiology (2011)
- Master of Science, Utrecht University, The Netherlands , Epidemiology (2010)
- Doctor of Medicine, Maastricht University, The Netherlands , Medicine (2005)

LINKS

- Canary Center website: http://canarycenter.stanford.edu/

Publications

PUBLICATIONS

- **Protein biomarkers on tissue as imaged via MALDI mass spectrometry: A systematic approach to study the limits of detection** *PROTEOMICS*
  van de Ven, S. M., Bemis, K. D., Lau, K., Adusumilli, R., Kota, U., Stolowitz, M., Vitek, O., Mallick, P., Gambhir, S. S.
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- **Probabilistic Segmentation of Mass Spectrometry (MS) Images Helps Select Important Ions and Characterize Confidence in the Resulting Segments** *MOLECULAR & CELLULAR PROTEOMICS*
  Bemis, K. D., Harry, A., Eberlin, L. S., Ferreira, C. R., van de Ven, S. M., Mallick, P., Stolowitz, M., Vitek, O.
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- **Cardinal: an R package for statistical analysis of mass spectrometry-based imaging experiments** *BIOINFORMATICS*
  Bemis, K. D., Harry, A., Eberlin, L. S., Ferreira, C., van de Ven, S. M., Mallick, P., Stolowitz, M., Vitek, O.
  2015; 31 (14): 2418-2420

- **Light in and sound out: emerging translational strategies for photoacoustic imaging.** *Cancer research*
  Zackrisson, S., van de Ven, S. M., Gambhir, S. S.
  2014; 74 (4): 979-1004

- **Development and Evaluation of a Prediction Model for Underestimated Invasive Breast Cancer in Women with Ductal Carcinoma In Situ at Stereotactic Large Core Needle Biopsy** *PLOS ONE*
  Diepstraten, S. C., van de Ven, S. M., Pijnappel, R. M., Peeters, P. H., Van den Bosch, M. A., Verkooijen, H. M., Elias, S. G.
  2013; 8 (10)

- **Optical Imaging with Her2-Targeted Affibody Molecules Can Monitor Hsp90 Treatment Response in a Breast Cancer Xenograft Mouse Model** *CLINICAL CANCER RESEARCH*
  van de Ven, S. M., Elias, S. G., Chan, C. T., Miao, Z., Cheng, Z., De, A., Gambhir, S. S.
  2012; 18 (4): 1073-1081

- **Optical mammography combined with fluorescence imaging: lesion detection using scatterplots** *BIOMEDICAL OPTICS EXPRESS*
  Leproux, A., van der Voort, M., van der Mark, M. B., Harbers, R., van de Ven, S. M., van Leeuwen, T. G.
  2011; 2 (4): 1007-1020

- **Molecular Imaging Using Light-Absorbing Imaging Agents and a Clinical Optical Breast Imaging System-a Phantom Study** *MOLECULAR IMAGING AND BIOLOGY*
  van de Ven, S. M., Mincu, N., Brunette, J., Ma, G., Khayat, M., Ikeda, D. M., Gambhir, S. S.
  2011; 13 (2): 232-238

- **Freehand MRI-Guided Preoperative Needle Localization of Breast Lesions After MRI-Guided Vacuum-Assisted Core Needle Biopsy Without Marker Placement** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
  van de Ven, S. M., Lin, M. C., Daniel, B. L., Sareen, P., Lipson, J. A., Pal, S., Dirbas, F. M., Ikeda, D. M.
  2010; 32 (1): 101-109

- **A Novel Fluorescent Imaging Agent for Diffuse Optical Tomography of the Breast: First Clinical Experience in Patients** *MOLECULAR IMAGING AND BIOLOGY*
  van de Ven, S., Wiethoff, A., Nielsen, T., Brendel, B., van der Voort, M., Nachabe, R., van der Mark, M., van Beek, M., Bakker, L., Fels, L., Elias, S., Luijten, P., Mali, et al
  2010; 12 (3): 343-348

- **Computer-aided detection (CAD) for breast MRI: evaluation of efficacy at 3.0 T** *EUROPEAN RADIOLOGY*
  Meeuwis, C., van de Ven, S. M., Stapper, G., Gallardo, A. M., Van den Bosch, M. A., Mali, W. P., Veldhuis, W. B.
  2010; 20 (3): 522-528

- **Diffuse optical tomography of the breast: preliminary findings of a new prototype and comparison with magnetic resonance imaging** *EUROPEAN RADIOLOGY*
  van de Ven, S. M., Elias, S. G., Wiethoff, A. J., van der Voort, M., Nielsen, T., Brendel, B., Bontus, C., Uhlemann, F., Nachabe, R., Harbers, R., van Beek, M., Bakker, L., van der Mark, et al

2009; 19 (5): 1108-1113

- **Diffuse Optical Tomography of the Breast: Initial Validation in Benign Cysts** *MOLECULAR IMAGING AND BIOLOGY*
  van de Ven, S., Elias, S., Wiethoff, A., van der Voort, M., Leproux, A., Nielsen, T., Brendel, B., Bakker, L., van der Mark, M., Mali, W., Luijten, P.
  2009; 11 (2): 64-70

- **Optical imaging of the breast** *CANCER IMAGING*
  de Ven, S. M., Elias, S. G., van den Bosch, M. A., Luijten, P., Mali, W. P.
  2008; 8 (1): 206-215