BIOGRAPHICAL SKETCH

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NAME: Hans-Christoph Becker, MD, FSABI, FSCCT

eRA COMMONS USER NAME (credential, e.g., agency login): BECKER.CHRISTOPH

POSITION TITLE: Professor of Radiology, Stanford Hospital & Clinics

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
Stadtkrankenhaus, Hanau, Germany	License	09/1986	Nursing
Ludwig-Maximilians-University Munich, Germany	MD	05/1993	Medicine
Ludwig-Maximilians-University Munich, Germany	Certification	03/2002	Radiology
Ludwig-Maximilians-University Munich, Germany	PhD	10/2002	Cardiac CT
Society of Cardiac CT, USA	Certification	02/2014	Cardiac CT
USMLE	License	04/2019	Medicine

A. Personal Statement

My current research focus is oncological clinical trial imaging and tumor response assessment. I am actively involved in more than 40 clinical phase II and III cancer trials and as a Co-Investigator I am in charge of the on-site response assessment based on imaging. I have extensive experience with clinical trials, CRFs, queries, monitor site visits and audits. In the last five years I have done more than 4,000 response assessment for more than 1,000 patients. I am providing conventional RECIST 1.1 as well as sophisticated response assessment according to the Cheson, Lugano and immune related response criteria, respectively. With the growing database, I have started specifically looking into the difference between the standard RECIST 1.1 and dedicated immune response criteria. The currently existing response criteria are constantly evolving but not yet taking full advantage of all imaging features. I am strongly convinced that radiomics structure analysis and techniques involving artificial intelligence revised imaging criteria can be developed that will allow for a better outcome prediction for patients in clinical trials. However, since current response criteria are based on large clinical databases, the ultimate goal will be to improve the current way of manual tumor response assessment by applying AI technology. My expertise is thus an excellent fit to this proposal, in which I will participate in the tumor assessments of the clinical evaluation of this project.

1. S Kaur, Stanford, CA; S Srinivas, MD; A Fan; V Chen; L Xie; **H R Becker**, MD, PhD Comparison of RECIST 1.1, irRC, irRECIST and WHO Criteria in Patients with Renal Cell Cancer Receiving Immune Therapy. Accepted for oral presentation at the RSNA 2017

B. Positions and Honors

Positions and Employment

1993-2000 Residency & radiology fellowship, Ludwig-Maximilians University of Munich, Germany
2001-2015 Professor of Radiology, Ludwig-Maximilians University of Munich, Germany
2015- Professor of Radiology, Stanford University, CA, USA

Awards and Honors

2001 Siemens Visiting Research Fellowship award, Vienna, Austria,
2003 Society of Body Computed Tomography and Magnetic Resonance Cum Laude Award
2008 Andreas-Grüntzig Lecture at CIRSE 2008, Copenhagen, Denmark

C. Contributions to Science

1. **Cardiac CT and quantitative assessment**: In the past, my scientific focus was cardiac CT. I evaluated and published extensively on the comparison between electron beam CT and spiral CT for coronary calcium screening. Challenges in quantifying the coronary calcium plaque burden shares similarities with trying to assess the change in tumor burden over time. When cardiac CT angiography evolved, I participated in the development of radiation dose reduction methods that led to two US patents. I have since published extensively in the field of cardiac CT. I have also participated in numerous clinical trials dealing with contrast-induced nephropathy. Since new CT applications and their clinical application have always been of interest for me, I also explored and published about the potential of rotating C-arm CT in patients planned for selective interventional radiation therapy (SIRT).

So far 225 peer reviewed scientific papers have been published under my name. A list of references that represents my work in the field of tumor response assessment best:

a. Chaudhuri, Aadel A, Barzin Y Nabet, David J Merriott, Michael Jin, Emily L Chen, Jacob J Chabon, Aaron M Newman, Henning Stehr, Carmen Say, and Justin N Carter. "(OA02) Circulating Tumor DNA Quantitation for Early Response Assessment of Immune Checkpoint Inhibitors for Metastatic Non-Small Cell Lung Cancer." *International Journal of Radiation Oncology, Biology, Physics* 101, no. 2 (2018): e1–2.
b. Hinostroza, Virginia, Aya Kino, Heiko Schmiedeskamp, Lior Molvin, Dominik Fleischmann, Hans-Christoph Becker, and Aya Kamaya. "Best Portal Venous Phase from Dynamic Liver Computed Tomography Perfusion." European Congress of Radiology 2018, 2018.
c. Merriott, DJ, AA Chaudhuri, M Jin, JJ Chabon, A Newman, H Stehr, C Say, JN Carter, S Walters, and HCR Becker. "Circulating Tumor DNA Quantitation for Early Response Assessment of Immune Checkpoint Inhibitors for Lung Cancer." *International Journal of Radiation Oncology• Biology• Physics* 99, no. 2 (2017): S20–21.
d. Zhou, Maggie, Nam Bui, Shreyana Bolleddu, Marta Lohman, Hans-Christoph Becker, and Kristen Ganjoo. "Nivolumab plus Ipilimumab for Soft Tissue Sarcoma: A Single Institution Retrospective Review." *Immunotherapy* 12, no. 18 (2020): 1303–12.

Complete List of Published Work in My Bibliography: https://scholar.google.com/citations?hl=en&user=ux-A9IMAAAAJ&sortby=pubdate&view_op=list_works&citft=1&citft=2&citft=3&email_for_op=hanschristophbecker%40gmail.com&gmla=AJsN-F6ARMI0VmqiM_9AXWkYz_ScML80Gcm2seDkRuHCSeYRRpViRkmg4isFrMZnYRkKQDVBI2U_n7a0BZvMNJti4cqastJcYVHsIysONcuSsMxZhcwWBx7BsQrNkZ_2wiGLes3-w2nyBY_ZLfdTFZ4Jpyt--hQW5qgSkbkY-YFNYQzxRu4LWV6mbOBUb4-hqGBUjxrtl9qkzQn6T3uOlKR7FhdPnrywI5iLgh8wnAJRI0LRUvNE3WHChonQ2jNNeT3c2cpfUGG1