



# CURRICULUM VITAE

## JOANNA NAPP

Dr. Joanna Napp (Ph.D.)

\* geboren am 07.01.1974

<b>1992</b>	Studienbeginn, Biologie, Nicolaus Copernicus Universität in Torun, Polen
<b>1996 – 1997</b>	Studienaufenthalt an der Georg-August-Universität in Göttingen, experimentelle Arbeiten zur Magisterarbeit am Institut für Humangenetik „Gen TSGm1: Struktur und haploide Expression“ (Prof. Dr. W. Engel)
<b>1998</b>	Studienabschluss, Magister (mgr.) in Biologie
<b>1998 – 1999</b>	DAAD Stipendium zur Fortbildung in Deutschland, Realisierung eines wissenschaftlichen Programms am Institut für Humangenetik der UMG
<b>2000 – 2003</b>	Dissertation, Ph.D., MPI für Experimentelle Medizin & „Neuroscience“ Promotionsprogramm am European Neuroscience Institute (ENI) in Göttingen und UMG
<b>Seit 2006</b>	Postdoctoral Scientist in der Arbeitsgruppe Translationale Molekulare Bildgebung an der UMG und am MPI für Experimentelle Medizin in Göttingen unter der Leitung von Prof. F. Alves Schwerpunkt: Präklinische Onkologie
<b>Seit 2015</b>	Nachwuchsgruppenleiterin Bildgestützte Nanotherapie und Diagnostik an der UMG; Gastwissenschaftlerin am Max-Planck-Institut (MPI) für Experimentelle Medizin, Göttingen
<b>März 2020</b>	Venia Legendi in Molekularer Bildgebung (experimentelle Radiologie) an der Universitätsmedizin Göttingen (UMG); Habilitationsschrift: „Imaging approaches for improved management of pancreatic tumours“.
<b>Laufende Drittmittelprojekte</b>	DFG (2019): Synergistic Image-guided Nanoparticles for Drug Delivery (SIN-Drug)
<b>Mitgliedschaften</b>	- European Society for Molecular Imaging (ESMI) - ESMI study groups: X-ray based Imaging, Image-Guided Drug Delivery, Intra-Operative Imaging
<b>Gutachtertätigkeit</b>	- Gutachtertätigkeit für die Deutsche Forschungsgemeinschaft (DFG) - Gutachtertätigkeit für wissenschaftliche Zeitschriften: International Journal of Cancer, Cancer Research, International Journal of Nanomedicine, PLOS ONE, Nature Biomedical Engineering
<b>Editorial board</b>	Frontiers In Oncology
<b>Fakultätsinterne Tätigkeiten innerhalb der UMG</b>	- seit 2019 aktives Mitglied der Forschungskommission der UMG - seit 2015 aktives Mitglied der Tierschutzkommission der UMG und des MPI für Experimentelle Medizin

**Original- und Über-  
arbeitungsarbeiten**

Insgesamt 25 davon 9 mit Erstautorschaft und 2 mit Letztautorschaft,  
Gesamtes Impact Factor [IF]: 131.3

Review: Neumeier BL, Khorenko M, Alves F, Goldmann O, Napp J, Schepers U, Reichardt HM, Feldmann C. Fluorescent inorganic-organic hybrid nanoparticles. *Chem Nano Mat.* 2019; 5: 24–45. doi:10.1002/cnma.201800310 (IF2019: 3.173)

Napp J, Markus MA, Heck JG, Dullin C, Möbius W, Gorpas D, Feldmann C, Alves F. Therapeutic Fluorescent hybrid nanoparticles for traceable delivery of glucocorticoids to inflammatory sites. *Theranostics.* 2018; 8(22): 6367-83. doi:10.7150/thno.28324. (IF2018: 8.537)

Napp J\* and Stammes MA\*, Claussen J, Prevoo HAJM, Sier CFM, Hoeben FJM, Robillard MS, Vahrmeijer AL, Devling T, Chan AB, de Geus-Oei LF, Alves F. Fluorescence-and multispectral optoacoustic imaging for an optimized detection of deeply located tumors in an orthotopic mouse model of pancreatic carcinoma. *Int J Cancer.* 2018; 142(10): 2118-29. doi:10.1002/ijc.31236. (IF2018: 7.360) \*Geteilte Erstautorschaft

Pauli J, Pochstein M, Haase A, Napp J, Luch A, Resch-Genger U. Influence of label and charge density on the association of the therapeutic monoclonal antibodies Trastuzumab and Cetuximab conjugated to anionic fluorophores. *Chembiochem.* 2017; 18(1): 101-10. doi:10.1002/cbic.201600299. (IF2017: 2.774)

Poß M, Tower RJ, Napp J, Appold LC, Lammers T, Alves F, Glüer C-C, Boretius S, Feldmann C. Multimodal [GdO]<sub>3</sub>+ [ICG]- Nanoparticles for optical, photoacoustic and magnetic resonance imaging. *Chem Mater.* 2017; 29(8): 3547-54. doi:10.1021/acs.chemmater.6b05406 (IF2017: 9.890)

Saccomano M, Dullin C, Alves F, Napp J. Preclinical evaluation of near-infrared (NIR) fluorescently labeled cetuximab as a potential tool for fluorescence-guided surgery. *Int J Cancer.* 2016; 139(10): 2277-89. doi:10.1002/ijc.30277. (IF2016: 6.513)

Napp J, Pardo LA, Hartung F, Tietze LF, Stühmer W, Alves F. In vivo imaging of tumour xenografts with an antibody targeting the potassium channel Kv10.1. *Eur Biophys J.* 2016; 45(7): 721-33. doi:10.1007/s00249-016-1152-z (IF2016: 1.472)

Giannuzzo A, Saccomano M, Napp J, Ellegaard M, Alves F, Novak I. Targeting of the P2X7 receptor in pancreatic cancer and stellate cells. *Int J Cancer.* 2016; 139(11): 2540-52. doi:10.1002/ijc.30380. (IF2016: 6.513)

Markus MA\* and Napp J\*, Behnke T, Mitkovski M, Monecke S, Dullin C, Kilfeather S, Dressel R, Resch-Genger U, Alves F. Tracking of inhaled near-infrared fluorescent nanoparticles in lungs of SKH-1 mice with allergic airway inflammation. *ACS Nano.* 2015; 9(12): 11642-57. doi:10.1021/acsnano.5b04026. (IF2015: 13.334) \*Geteilte Erstautorschaft

Heck JG and Napp J\*, Simonato S, Möllmer J, Lange M, Reichardt HM, Staudt R, Alves F, Feldmann C. Multifunctional phosphate-based inorganic-organic hybrid nanoparticles. *J Am Chem Soc.* 2015; 137(23): 7329-36. doi:10.1021/jacs.5b01172. (IF2015: 13.038)  
\*Geteilte Erstautorschaft

Poß M, Napp J, Niehaus O, Pöttgen R, Alves F, Feldmann C. M<sub>3</sub>+ [amaranth red]<sub>3</sub>- (M = La, Gd): a novel sulfonate-based inorganic-organic hybrid nanomaterial for multimodal imaging. *J Mater Chem C.* 2015; 3(16): 3860-68. doi:10.1039/C5TC00413F (IF2015: 5.066)

**Original- und Über-  
arbeitsarbeiten**

Dullin C, Dal Monego S, Larsson E, Mohammadi S, Krenkel M, Garrovo C, Biffi S, Lorenzon A, Markus A, Napp J, Salditt T, Accardo A, Alves F, Tromba G. Functionalized synchrotron in-line phase-contrast computed tomography: a novel approach for simultaneous quantification of structural alterations and localization of barium-labelled alveolar macrophages within mouse lung samples. *J Synchrotron Radiat.* 2015; 22(1): 143-55. doi:10.1107/S1600577514021730. (IF2015: 1.877)

Wottawa M, Leisering P, Ahlen M, Schnelle M, Vogel S, Malz C, Bordoli MR, Camenisch G, Hesse A, Napp J, Alves F, Kristiansen G, Farhat K, Katschinski DM. Knockdown of prolyl-4-hydroxylase domain 2 inhibits tumor growth of human breast cancer MDA-MB-231 cells by affecting TGF-beta1 processing. *Int J Cancer.* 2013; 132(12): 2787-98. doi:10.1002/ijc.27982 (IF2013: 5.60)

Behnke T, Mathejczyk JE, Brehm R, Wurth C, Gomes FR, Dullin C, Napp J, Alves F, Resch-Genger U. Target-specific nanoparticles containing a broad band emissive NIR dye for the sensitive detection and characterization of tumor development. *Biomaterials.* 2013; 34(1): 160-70. doi:10.1016/j.biomaterials.2012.09.028. (IF2013: 8.312)

Mathejczyk JE, Pauli J, Dullin C, Resch-Genger U, Alves F, Napp J. High-sensitivity detection of breast tumors in vivo by use of a pH-sensitive near-infrared fluorescence probe. *J Biomed Opt.* 2012; 17(7): 076028. doi:10.1117/1.JBO.17.7.076028. (IF2012: 2.881)

Review: Napp J, Mathejczyk JE, and Alves F. Optical imaging in vivo with a focus on paediatric disease: technical progress, current preclinical and clinical applications and future perspectives. *Pediatr Radiol.* 2011; 41(2): 161-75. doi:10.1007/s00247-010-1907-0. (IF2011: 2.56)

Napp J\* and Behnke T\*, Fischer L, Wurth C, Wottawa M, Katschinski DM, Alves F, Resch-Genger U, Schaferling M. Targeted luminescent near-infrared polymer-nanoprobes for in vivo imaging of tumor hypoxia. *Anal Chem.* 2011; 83(23): 9039-46. doi:10.1021/ac201870b. (IF2011: 5.856)  
\*Geteilte Erstautorschaft

Mathejczyk JE, Pauli J, Dullin C, Napp J, Tietze LF, Kessler H, Resch-Genger U, Alves F. Spectroscopically well-characterized RGD optical probe as a prerequisite for lifetime-gated tumor imaging. *Mol Imaging.* 2011; 10(6): 469-80. doi:10.2310/7290.2011.00018 (IF2011: 3.180)

Napp J, Dullin C, Muller F, Uhland K, Petri JB, van de Locht A, Steinmetzer T, Alves F. Time-domain in vivo near infrared fluorescence imaging for evaluation of matriptase as a potential target for the development of novel, inhibitor-based tumor therapies. *Int J Cancer.* 2010; 127(8): 1958-74. doi:10.1002/ijc.25405. (IF2010: 4.926)

Lorinczi E, Napp J, Contreras-Jurado C, Pardo LA, Stuhmer, W. The voltage dependence of hEag currents is not determined solely by membrane-spanning domains. *Eur Biophys J.* 2009; 38(3): 279-84. doi:10.1007/s00249-008-0319-7. (IF2009: 2.85)

Dullin C, Zientkowska M, Napp J, Missbach-Guentner J, Krell HW, Muller F, Grabbe E, Tietze LF, Alves F. Semiautomatic landmark-based two-dimensional-three-dimensional image fusion in living mice: correlation of near-infrared fluorescence imaging of Cy5.5-labeled antibodies with flat-panel volume computed tomography. *Mol Imaging.* 2009; 8(1): 2-14. doi:10.2310/7290.2009.00001 (IF2009: 3.31)

Alves F, Dullin C, Napp J, Missbach-Guentner J, Jannasch K, Mathejczyk J, Pardo LA, Stuhmer W, Tietze LF. Concept of a selective tumour therapy and its evaluation by near-infrared fluorescence imaging and flat-panel volume computed tomography in mice. *Eur J Radiol.* 2009; 70(2): 286-93. doi:10.1016/j.ejrad.2009.01.048. (IF2009: 2.645)

<b>Original- und Über- arbeitsarbeiten</b>	<p>Rolf HJ, Kierdorf U, Kierdorf H, Schulz J, Seymour N, Schliephake H, Napp J, Niebert S, Wolfel H, Wiese KG. Localization and characterization of STRO-1 cells in the deer pedicle and regenerating antler. PLoS One. 2008; 3(4): e2064. doi:10.1371/journal.pone.0002064 (IF2008: 4.81)</p> <p>Materna T, Rolf HJ, Napp J, Schulz J, Gelinsky M, Schliephake H. In vitro characterization of three-dimensional scaffolds seeded with human bone marrow stromal cells for tissue engineered growth of bone: mission impossible? A methodological approach. Clin Oral Implants Res. 2008; 19(4): 379-86. doi:10.1111/j.1600-0501.2007.01483.x. (IF2008: 4.62)</p> <p>Napp J, Monje F, Stuhmer W, Pardo LA. Glycosylation of Eag1 (Kv10.1) potassium channels: intracellular trafficking and functional consequences. J Biol Chem. 2005; 280(33): 29506-12. doi:10.1074/jbc.M504228200 (IF2005: 6.16)</p>
<b>Buchbeiträge</b>	<p>Napp J and Alves F (2014). 4.01 - Bio-optical Imaging. Comprehensive Biomedical Physics. A. Brahme. Oxford, Elsevier: 1-14.</p>
<b>Patente</b>	<p>„Wirkstofffreisetzung aus anorganisch-organischen Hybridnanopartikeln mit Fluoreszenzmarker“ (Patent Nr. A14301)</p>
<b>Vorträge (Auswahl)</b>	<p>Eingeladen: Napp J. Fluorescence and MSOT imaging for an optimised detection of tumours in an orthotopic mouse model of pancreatic carcinoma (Optoacoustic imaging meeting, Erlangen, 2018)</p> <p>Napp J. et al. Tracking the delivery and assessment of the efficacy of fluorescent glucocorticoid hybrid nanoparticles in experimental mouse models of inflammation (EMIM, San Sebastian, Spanien, 2018)</p> <p>Napp J. et al. Therapeutic Fluorescent Hybrid Nanoparticles for Monitored Delivery of Glucocorticoids to the Inflammatory Sites (EMIM, Köln, 2017)</p> <p>Napp J. et al. Preclinical evaluation of cRGD-CW800 in an orthotopic pancreatic cancer model using MSOT and 2D near-infrared fluorescence imaging (Deutsche Gesellschaft für Chirurgie, München 2017)</p> <p>Intraoperative imaging of pancreatic carcinoma in an orthotopic murine tumor model using cRGD conjugated to near infrared fluorescent dyes (Deutsche Gesellschaft für Chirurgie, München 2017)</p> <p>Napp J. et al. Intraoperative Bildgebung von Pankreastumoren (DGVS Hamburg 2016)</p> <p>Napp J. et al. Near infrared Itrybe nanoparticles for non-invasive detection of asthma (MoBi, Jena, 2014)</p> <p>Napp J. et al. Visualization of human pancreatic ductal adenocarcinoma xenografts by noninvasive near-infrared optical imaging in combination with fluorescent labeled Cetuximab (MoBi, Jena, 2014)</p>