




**iFIT** **Image-Guided & Functionally Instructed Tumor Therapies**  
Cluster of Excellence

Visualizing and Targeting Cancer Stress

# *iFIT publications*


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The list of iFIT-related publications is sorted by iFIT research area and last name of first author. iFIT partners are marked in bold, titles in red. The list is accompanied by **statistics on impact factors** and **number of publications per area**. Publications with the highest IF (>15) are highlighted .

This second issue shows all 110 iFIT-related publications from **July 2020** to **June 2021**.

**THANKS** for this excellent and impressive work!

## ● Area A | **FIMT – Functionally Instructed Molecular Therapies**

 **IF 26,602** Affo, S., Nair, A., Brundu, F., Ravichandra, A., Bhattacharjee, S., [...], **Zender, L.**, [...], Sia, D., Chen, X., Califano, A., and Schwabe, R.F. (2021). **Promotion of cholangiocarcinoma growth by diverse cancer-associated fibroblast subpopulations.** Cancer Cell.

Alim, K., Moreau, A., Bruyere, A., Jouan, E., Denizot, C., **Nies, A.T.**, Parmentier, Y., and Fardel, O. (2021). **Inhibition of organic cation transporter 3 activity by tyrosine kinase inhibitors.** Fundam Clin Pharmacol.

Behling, F., Fodi, C., Gepfner-Tuma, [...], M. Schittenhelm, J., and **Tabatabai, G.** (2020). **H3K27me3 loss indicates an increased risk of recurrence in the Tübingen meningioma cohort.** Neuro Oncol.

Berchtold, S., Beil, Raff, C., [...], Gross, S., and **Lauer, U.M.** (2020). **Assessing and Overcoming Resistance Phenomena against a Genetically Modified Vaccinia Virus in Selected Cancer Cell Lines.** Int J Mol Sci 21.

 **IF 74,699** Breast Cancer Association, C., [...], **Brauch, H.**, [...], Fortunato, C., [...], Devilee, P., and Easton, D.F. (2021). **Breast Cancer Risk Genes - Association Analysis in More than 113,000 Women.** N Engl J Med 384, 428-439.

Bruyère, A., Le Vee, M., Jouan, E., Molez, S., **Nies, A.T.**, and Fardel, O. (2021). **Differential in vitro interactions of the Janus kinase inhibitor ruxolitinib with human SLC drug transporters.** Xenobiotica 51, 467-478.

Coignard, J., Lush, M., [...], **Brauch, H.**, [...], Bolla, M.K., [...], Andrieu, N., and Antoniou, A.C. (2021). **A case-only study to identify genetic modifiers of breast cancer risk for BRCA1/BRCA2 mutation carriers.** Nat Commun 12, 1078.

Filali-Mouncef, Y., Hunter, C., Roccio, F., Zagkou, S., Dupont, N., Primard, C., **Proikas-Cezanne, T.**, and Reggiori, F. (2021). **The menage a trois of autophagy, lipid droplets and liver disease.** Autophagy, 1-24.

**Forster, M.**, Liang, X.J., Schroder, M., Gerstenecker, S., Chaikuad, A., Knapp, S., **Laufer, S.A.**, and **Gehring, M.** (2020). **Discovery of a Novel Class of Covalent Dual Inhibitors Targeting the Protein Kinases BMX and BTK.** Int J Mol Sci 21.

**Gehring, M.** (2020). **Covalent inhibitors: back on track?** Future Med Chem 12, 1363-1368.

Hinterleitner, M., Sipos, B., Wagner, V., Grottenthaler, J.M., **Lauer, U.M.**, **Zender, L.**, and Hinterleitner, C. (2021). **Platelet-Expressed Synaptophysin (pSyn) as Novel Biomarker in Neuroendocrine Malignancies.** Cancers (Basel) 13.

Huang, K.M., Zavorka Thomas, [...], **Nies, A.T.**, [...], Burridge, P.W., and Sparreboom, A. (2021). **Targeting OCT3 attenuates doxorubicin-induced cardiac injury.** Proc Natl Acad Sci U S A 118.

Johnson, N., Maguire, S., [...], **Brauch, H.**, [...], Orr, N., Fletcher, O. (2021). **CYP3A7\*1C Allele: linking premenopausal oestron and progesterone levels with risk of hormone receptor-positive breast cancers.** Br J Cancer 124, 842-854.

Kapoor, P.M., Mavaddat, N., [...], **Brauch, H.**, [...], Garcia-Closas, M., Chang-Claude, J. (2021). **Combined Associations of a Polygenic Risk Score and Classical Risk Factors With Breast Cancer Risk.** J Natl Cancer Inst 113, 329-337.

Klövekorn, P., Pfaffenrot, B., Juchum, M., Selig, R., **Albrecht, W., Zender, L., and Laufer, S.A.** (2021). **From off- to on-target: New BRAF-inhibitor-template-derived compounds selectively targeting mitogen activated protein kinase kinase 4 (MKK4).** Eur J Med Chem 210, 112963.

Kölz, C., **Schaeffeler, E., Schwab, M., and Nies, A.T.** (2021). **Genetic and Epigenetic Regulation of Organic Cation Transporters.** Handb Exp Pharmacol.

Neef, S.K., Janssen, N., Winter, S., Wallisch, S.K., Hofmann, U., Dahlke, M.H., **Schwab, M.**, Murdter, T.E., and Haag, M. (2020a). **Metabolic Drug Response Phenotyping in Colorectal Cancer Organoids by LC-QTOF-MS.** Metabolites 10.

Neef, S.K., Winter, S., [...], **Schaeffeler, E.**, [...], **Fend, F.**, Bedke, J., **Schwab, M.**, and Haag, M. (2020b). **Optimized protocol for metabolomic and lipidomic profiling in formalin-fixed paraffin-embedded kidney tissue by LC-MS.** Anal Chim Acta 1134, 125-135.

Neul, C., Hofmann, U., **Schaeffeler, E.**, Winter, S., Klein, K., Giacomini, K.M., Eichelbaum, M., **Schwab, M.**, and **Nies, A.T.** (2021). **Characterization of cytochrome P450 (CYP) 2D6 drugs as substrates of human organic cation transporters and multidrug and toxin extrusion proteins.** Br J Pharmacol 178, 1459-1474.

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Pfaffenrot, B., Klovekorn, P., Juchum, M., Selig, R., **Albrecht, W., Zender, L., and Laufer, S.A.** (2021). **Design and synthesis of 1H-pyrazolo[3,4-b]pyridines targeting mitogen-activated protein kinase kinase 4 (MKK4) - A promising target for liver regeneration.** Eur J Med Chem 218, 113371.

Przystal, J.M., Becker, H., [...], Schmees, C., Beck, S. C., **Tabatabai, G.** (2021). **Targeting CSF1R Alone or in Combination with PD1 in Experimental Glioma.** Cancers (Basel) 13.

Rocha, C.M., Alves, A.M., Bettanin, B.F., Majolo, F., **Gehring, M., Laufer, S.A.**, and Goettert, M.I. (2021). **Current jakinibs for the treatment of rheumatoid arthritis: a systematic review.** Inflammopharmacology.

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Rudesheim, S., Wojtyniak, J.G., Selzer, D., Hanke, N., Mahfoud, F., **Schwab, M.**, and Lehr, T. (2020). **Physiologically Based Pharmacokinetic Modeling of Metoprolol Enantiomers and alpha-Hydroxymetoprolol to Describe CYP2D6 Drug-Gene Interactions.** Pharmaceutics 12.

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## ● Area B | ImmT – Immunotherapy

**iFIT 16,304** Bilich, T., Nelde, A., Heitmann, J.S., Maringer, Y., [...], **Stevanović, S., Rammensee H.G., Salih, H.R.**, and **Walz, J.S.** (2021). T cell and antibody kinetics delineate SARS-CoV-2 peptides mediating long-term immune responses in COVID-19 convalescent individuals. *Sci Transl Med* 13.

**iFIT 29,497** Bilich, T., Roerden, M., Maringer, Y., Nelde, A., Heitmann, J.S., [...], **Rammensee, H.G., Salih, H.R.** and **Walz, J.S.** (2021). Preexisting and post-COVID-19 immune responses to SARS-CoV-2 in cancer patients. *Cancer Discov.*

Franke, M., Bieber, M., Kraft, P., **Weber, A.N.R.**, Stoll, G., and Schuhmann, M.K. (2020). The NLRP3 inflammasome drives inflammation in ischemia/reperfusion injury after transient middle cerebral artery occlusion in mice. *Brain Behav Immun.*

Ghosh, M., Hartmann, H., Jakobi, M., Marz, L., Bichmann, L., Freudenmann, L.K., Muhlenbruch, L., Segan, S., **Rammensee, H.G.**, [...], **Stevanović, S.**, and Joos, T. O. (2020). The Impact of Biomaterial Cell Contact on the Immunoepitome. *Front Bioeng Biotechnol* 8, 571294.

Hagelstein, I., Lutz, M.S., Schmidt, [...], **Jung, G., Salih, H.R.**, Märklin, M., and Hinterleitner, C. (2021). Bispecific NKG2D-CD3 and NKG2D-CD16 Fusion Proteins as Novel Treatment Option in Advanced Soft Tissue Sarcomas. *Front Immunol* 12, 653081.

Heitmann, J.S., **Walz, J.S.**, Pflugler, M., Kauer, J., Schlenk, R.F., **Jung, G.**, and **Salih, H.R.** (2020). Protocol of a prospective, multicentre phase I study to evaluate the safety, tolerability and preliminary efficacy of the bispecific PSMAXCD3 antibody CC-1 in patients with castration-resistant prostate carcinoma. *BMJ Open* 10, e039639.

Heitmann, J.S., Pflugler, M., **Jung, G.**, and **Salih, H.R.** (2021). Bispecific Antibodies in Prostate Cancer Therapy: Current Status and Perspectives. *Cancers (Basel)* 13.

Hörner, S., Ghosh, M., Kauer, J., Spat, P., **Rammensee, H.G., Jung, G.**, and Pflugler, M. (2021). Mass spectrometry for quality control of bispecific antibodies after SDS-PAGE in-gel digestion. *Biotechnol Bioeng.*

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Meraz-Torres, F., Ploger, S., **Garbe, C., Niessner, H.**, and **Sinnberg, T.** (2020). **Disulfiram as a Therapeutic Agent for Metastatic Malignant Melanoma-Old Myth or New Logos?** *Cancers (Basel)* 12.

Nelde, A., **Rammensee, H.G.**, and **Walz, J.S.** (2021). **The Peptide Vaccine of the Future.** *Mol Cell Proteomics* 20.

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Richardson, J.R., Schollhorn, A., **Gouttefangeas, C.**, and Schuhmacher, J. (2021). **CD4+ T Cells: Multitasking Cells in the Duty of Cancer Immunotherapy.** *Cancers (Basel)* 13.

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Roerden, M., Marklin, M., **Salih, H.R.**, Bethge, W.A., Klein, R., **Rammensee, H.G.**, Nelde, A., and **Walz, J.S.** (2021). **Expression levels of HLA-DR in acute myeloid leukemia: implications for antigenicity and clinical outcome.** *Leuk Lymphoma*, 1-18.

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Roerden, M., Wirths, S., Sokler, M., Bethge, W.A., Vogel, W., and **Walz, J.S.** (2021). **Impact of Mantle Cell Lymphoma Contamination of Autologous Stem Cell Grafts on Outcome after High-Dose Chemotherapy.** *Cancers (Basel)* 13.

Schollhorn, A., Schuhmacher, J., Besedovsky, L., [...], **Stevanović, S.**, Lange, T., **Rammensee, H.G.**, Born, J., **Gouttefangeas, C.**, and Dimitrov, S. (2021). **Integrin Activation Enables Sensitive Detection of Functional CD4(+) and CD8(+) T Cells: Application to Characterize SARS-CoV-2 Immunity.** *Front Immunol* 12, 626308.

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 **IF38,637** Wang, J., Jelcic, I., Muhlenbruch, [...], **Rammensee, H.G.**, [...], **Stevanović, S.**, and Martin, R. (2020). **HLA-DR15 Molecules Jointly Shape an Autoreactive T Cell Repertoire in Multiple Sclerosis.** *Cell* 183, 1264-1281 e1220.

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**Weber, A.N.R.** (2021). **Targeting the NLRP3 Inflammasome via BTK.** *Front Cell Dev Biol* 9, 630479.

Zhou, Y., Heitmann, J.S., Kropp, K.N., Hinterleitner, M., Koch, A., Hartkopf, A.D., **Salih, H.R.**, Hinterleitner, C., Maurer, S. (2021). **Regulation of Platelet-Derived ADAM17: A Biomarker Approach for Breast Cancer?** *Diagnostics (Basel)* 11.

## ● Area C | MFMI – Molecular and Functional Multiparametric Imaging

Anbu, S., **Hoffmann, S.H.L.**, Carniato, F., Kenning, L., Price, T.W., Prior, T.J., Botta, M., **Martins, A.F.**, Stasiuk, G.J. (2021). *A single pot template reaction towards a manganese based T1 contrast agent.* Angew Chem Int Ed Engl.

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 **IF 36,553** Drakhlis, L., Biswanath, S., [...], **Schenke-Layland K.**, [...], Martin, U., and Zweigerdt, R. (2021). *Human heart-forming organoids recapitulate early heart and foregut development.* Nat Biotechnol.

Grimm, J., Kiessling, F., and **Pichler, B.J.** (2020). *Quo Vadis, Molecular Imaging?* J Nucl Med 61, 1428-1434.

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Holl, M., Becker, L., Keller, A.L., [...], **Schenke-Layland, K.**, [...], Krämer, B., and Weiss, M. (2021). *Laparoscopic Peritoneal Wash Cytology-Derived Primary Human Mesothelial Cells for In Vitro Cell Culture and Simulation of Human Peritoneum.* Biomedicines 9.

Jaeckle, E., Brauchle, E., Nottrodt, N., Wehner, M., Lensing, R., Gillner, A., **Schenke-Layland, K.**, Bach, M., and Burger-Kentischer, A. (2020). *Towards automation in biologics production via Raman micro-spectroscopy, laser-induced forward cell transfer and surface-enhanced Raman spectroscopy.* J Biotechnol 323, 313-321.

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Spenlé, C., Loustau, T., [...], **Schenke-Layland, K.**, [...], Van Obberghen-Schilling, E., and Orend, G. (2020). **Tenascin-C Orchestrates an Immune-Suppressive Tumor Microenvironment in Oral Squamous Cell Carcinoma.** *Cancer Immunol Res* 8, 1122-1138.

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 **IF 15,849** Zbinden, A., Layland, S.L., Urbanczyk, M., [...], Seifert, M., and **Schenke-Layland, K.** (2021). **Nidogen-1 Mitigates Ischemia and Promotes Tissue Survival and Regeneration.** *Adv Sci (Weinh)* 8, 2002500.

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## FIMT/ImmT – Functionally Instructed Molecular Therapies & Immunotherapy

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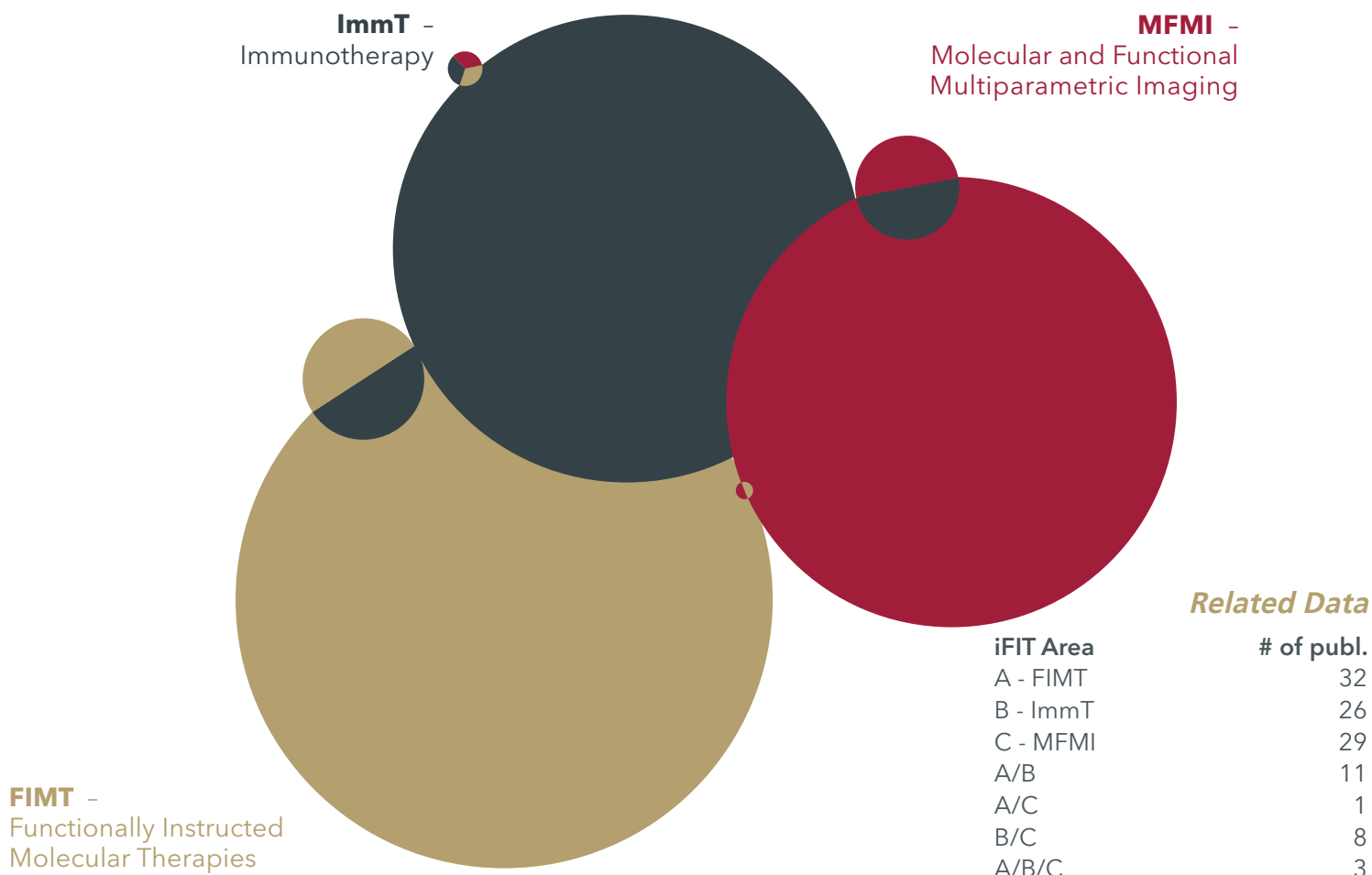
**IF 20,479** Nelde, A., Bilich, T., Heitmann, J.S., Maringer, Y., **Salih, H.R.**, Roerden, M., [...], **Rothbauer, U.**, [...], Rabsteyn, A., [...], Hagelstein, I., [...], **Gouttefangeas, C.**, [...], **Stevanović, S.**, **Rammensee, H.G.**, and **Walz, J.S.** (2021). **SARS-CoV-2-derived peptides define heterologous and COVID-19-induced T cell recognition.** Nat Immunol 22, 74-85.

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# Statistics

## Number of publications per area in this issue

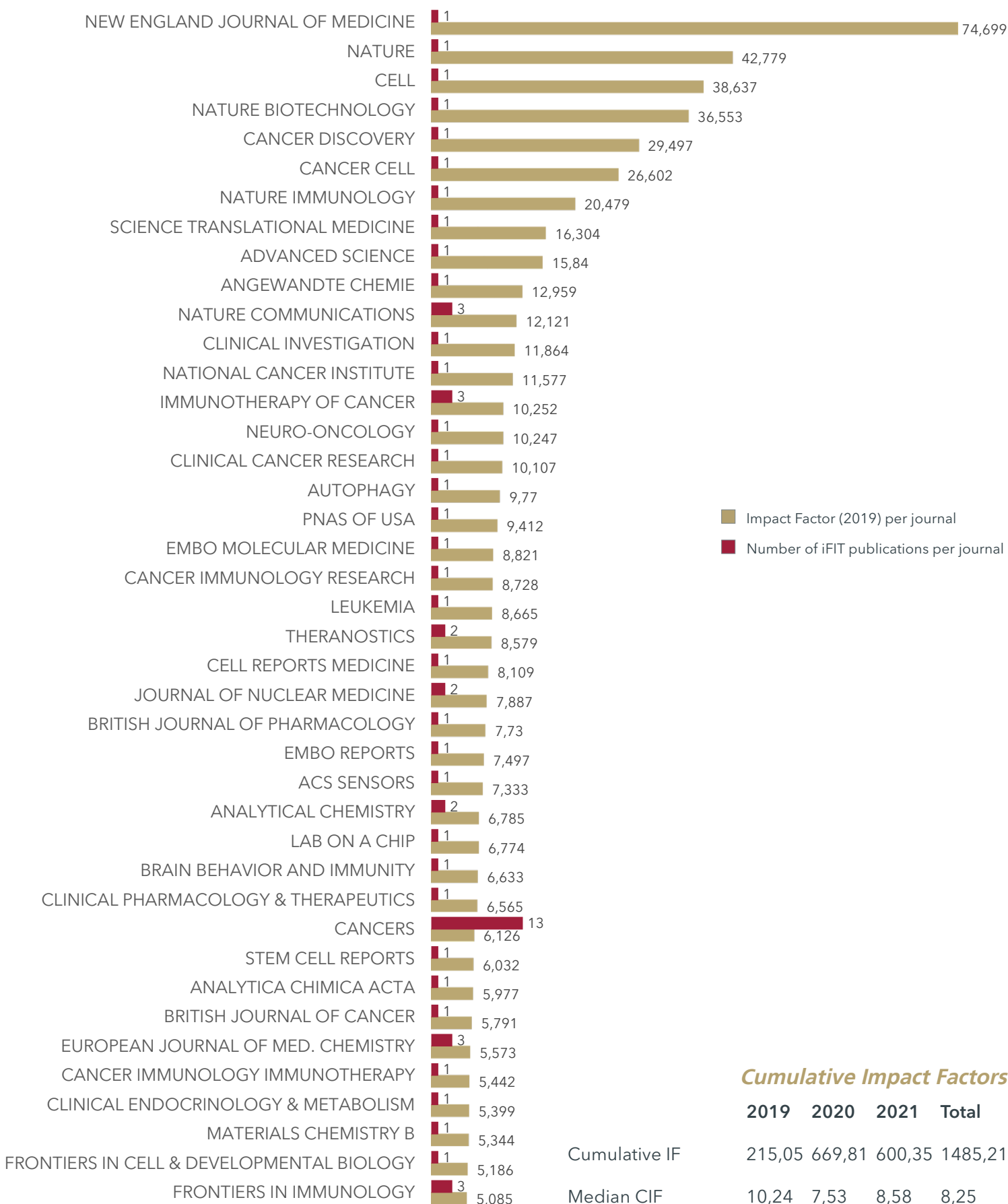


## Overall number of publications 2019 - 2021

iFIT Area	2019	2020	2021(Jan-Jun)	Total
A - FIMT	6	30	21	57
B - ImmT	5	19	16	40
C - MFMI	6	29	15	50
A/B	2	6	8	16
A/C	0	0	1	1
B/C	2	4	6	12
A/B/C	0	1	3	4
	<b>21</b>	<b>89</b>	<b>70</b>	<b>180</b>

# Impact Factors

## Journal Impact Factors & Number of iFIT-related Publications per Journal | IF >5



# Formalities

## Disclosure note

The iFIT research is translational, both preclinical and clinical but also across disciplines. The **Covid pandemic** made clear that **mRNA vaccination**, which was originally developed for tumor vaccination, paved the way out of this world-wide problematic situation. Moreover, current iFIT research toward **peptide tumor vaccination** has been translated by iFIT researchers and contributes to a **clinical trial of Covid vaccinations** specifically for **cancer patients** with a **suppressed immune system**.

## Mandatory Requirements for iFIT Publications

Regardless of the language of the publication and according to the **DFG's requirements**, it is mandatory to use the exact provided wording for the **affiliation and acknowledgment**. The DFG searches for publications solely with the help of these phrases. Therefore, if the wording is not respected, the publication will not be found and will not count for the Cluster's achievements.

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### iFIT AFFILIATION

Cluster of Excellence iFIT (EXC 2180) "Image-Guided and Functionally Instructed Tumor Therapies", University of Tuebingen, Germany

## Collection & Sorting of Data

Publications included into this list were collected by requesting a regular update on most recent publication from all iFIT Principal Investigators and Associate Investigators. Moreover, the iFIT office is regularly searching at the PubMed (<https://pubmed.ncbi.nlm.nih.gov/>) for all papers with an "iFIT" or "EXC 2180" acknowledgement. This implies that only papers with the iFIT acknowledgement and/or affiliation can be considered.

Papers are associated to an iFIT area according to the area of the iFIT PIs/AIs shown as authors and marked in bold - regardless of their position in the list of authors. Each iFIT PI/AI is associated with (at least) one iFIT area:

- A** | **FIMT** - Functionally Instructed Molecular Therapies
- B** | **ImmT** - Immunotherapy
- C** | **MFMI** - Molecular and Functional Multiparametric Imaging

Information about the Impact Factors (2019) is obtained on the website <https://jcr.clarivate.com>.