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Advancing precision oncology: insights from C-terminal FGFR2/3 truncations and MYC-driven mTOR inhibitor resistance

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CURRICULUM VITAE

Julia Yemelyanenko was born on November 21, 1993, in Sevastopol, Ukraine. In 2002, she moved to Spain with her parents. After completing her secondary education in 2012, she enrolled in the Bachelor's degree in Human Biology at the Pompeu Fabra University in Barcelona, Spain. During her undergraduate studies, she undertook two short research internships, at the University of Debrecen (Hungary) and the University of Adelaide (Australia).

Upon obtaining her Bachelor's degree, she moved to the Netherlands in 2016 to pursue a two-year Master's degree in Oncology at the Vrije Universiteit Amsterdam. During this period, she completed two extended research internships that sparked her strong interest in oncology research, particularly in its translational aspects. Her first internship was at the VUmc Cancer Center Amsterdam (CCA), in the groups of Prof. Dr. Tanja de Gruijl and Prof. Dr. Victor van Beusechem, where she investigated combination therapies involving an oncolytic virus and immune-modulating compounds in melanoma. For her second internship, she joined the group of Prof. Dr. Jos Jonkers at the Netherlands Cancer Institute (NKI), where she worked on DNA damage response and PARP inhibitor resistance.

Following her Master's graduation in 2018, she continued at the NKI as a laboratory technician in the group of Prof. Dr. Jos Jonkers. During this time, she focused on the validation of a novel potential mechanism of resistance to mTOR inhibitors in invasive lobular carcinoma. In 2021, she started her PhD in the same group, shifting her focus to the functional characterization of somatic variants of unknown significance in clinically actionable kinases, with particular emphasis on FGFR2 and FGFR3. The findings of this work are presented in this thesis.

LIST OF PUBLICATIONS

Yemelyanenko J, Jonkers J#, Zingg D#. FGFR rearrangements: oncogenic drivers and therapeutic targets. *Trends Cancer*. 2026 May;12(5):461-476. doi: 10.1016/j.trecan.2026.01.010.

Yemelyanenko J*, Bhin J*, van der Burg E, Drenth AP, Lee JK, Lutz C, Dörner L, Wientjens E, Klarenbeek S, Song JY, Moon H, Annunziato S, Proost N, Siteur B, Ross JS, van de Ven M, van Tellingen O, Ganesan S, Wessels LFA, Zingg D#, Jonkers J#. C-terminal Truncation and Fusion Partner Determine Oncogenicity of FGFR3. *Cancer Res*. 2026 Mar 16;86(6):1372-1391. doi: 10.1158/0008-5472.CAN-24-2648.

Zingg D*#, Lin CC*, **Yemelyanenko J**, Wieteska L, Kas SM, Bleijerveld OB, Chao X, Bhin J, Lutz C, Wientjens E, Klarenbeek S, Zanec G, Annunziato S, Siteur B, van der Burg E, Drenth AP, van de Ven M, Wessels LFA, Altelaar M, Ladbury JE#, Jonkers J#. The C-Terminal Kinase Domain-Binding and Suppression Motif Prevents Constitutive Activation of FGFR2. *Cancer Res*. 2025 Sep 2;85(17):3234-3257. doi: 10.1158/0008-5472.CAN-24-3349.

Bhin J*, **Yemelyanenko J***, Chao X, Klarenbeek S, Opdam M, Malka Y, Hoekman L, Kruger D, Bleijerveld O, Brambillasca CS, Sprengers J, Siteur B, Annunziato S, van Haren MJ, Martin NI, van de Ven M, Peters D, Agami R, Linn SC, Boven E, Altelaar M, Jonkers J#, Zingg D#, Wessels LFA#. MYC is a clinically significant driver of mTOR inhibitor resistance in breast cancer. *J Exp Med*. 2023 Nov 6;220(11):e20211743. doi: 10.1084/jem.20211743.

Zingg D*, Bhin J*, **Yemelyanenko J***, Kas SM*, Rolfs F, Lutz C, Lee JK, Klarenbeek S, Silverman IM, Annunziato S, Chan CS, Piersma SR, Eijkman T, Badoux M, Gogola E, Siteur B, Sprengers J, de Klein B, de Goeij-de Haas RR, Riedlinger GM, Ke H, Madison R, Drenth AP, van der Burg E, Schut E, Henneman L, van Miltenburg MH, Proost N, Zhen H, Wientjens E, de Bruijn R, de Ruiter JR, Boon U, de Korte-Grimmerink R, van Gerwen B, Féliz L, Abou-Alfa GK, Ross JS, van de Ven M, Rokenberg S, Cuppen E, Chessex AV, Ali SM, Burn TC, Jimenez CR, Ganesan S#, Wessels LFA#, Jonkers J#. Truncated FGFR2 is a clinically actionable oncogene in multiple cancers. *Nature*. 2022 Aug;608(7923):609-617. doi: 10.1038/s41586-022-05066-5.

Klarenbeek S, Doornebal CW, Kas SM, Bonzanni N, Bhin J, Braumuller TM, van der Heijden I, Opdam M, Schouten PC, Kersten K, de Bruijn R, Zingg D, **Yemelyanenko J**, Wessels LFA, de Visser KE, Jonkers J. Response of metastatic mouse invasive lobular carcinoma to mTOR inhibition is partly mediated by the adaptive immune system. *Oncoimmunology* 2020 Feb 12;9(1):1724049. doi: 10.1080/2162402X.2020.1724049.

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