Dr. Florian Grebien

Personal Data:

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Date of Birth: January 13, 1978 in Graz
Nationality: Austrian

Research Interests

Molecular mechanisms of normal and malignant hematopoiesis, transcription factors, chromatin modulators, kinases, oncogenic fusion proteins, signal transduction in leukemia.

Research Experience

Jan 2014 – present: Principal Investigator, Ludwig Boltzmann Institute for Cancer Research, Vienna

Jan 2008 – Dec 2013: Postdoctoral fellow, CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences Vienna, advisor: Giulio Superti-Furga

Feb 2004 – Nov 2007: PhD student, Medical University Vienna and IMP Vienna, advisors: Ernst Müllner, Hartmut Beug

Jak-Stat signaling in erythroid development.

Jul 2002 – Dec 2003: MSc student, Medical University Vienna, advisor: Ernst Müllner

Factors involved in cell size control and differentiation of erythroid progenitors.

Education

2008 – 2013	Postdoctoral Fellow, CeMM Vienna
Nov 2007	PhD, cum laude, University Vienna
2004 – 2007	PhD thesis, Medical University Vienna and IMP Vienna
Dec 2003	MSc, cum laude, University Vienna
1997 – 2003	Studies of genetics, University Vienna
1997	Military service, Klagenfurt
1996	Reifeprüfung, cum laude, Akademisches Gymnasium Graz
1988 – 1996	Akademisches Gymnasium Graz

Funding

2015 – 2020	ERC Starting Grant "ONCOMECHAML" (€ 1,499,500.00)
2012 – 2015	Member of the consortium of the Marie Curie Initial Training Network Hem_ID (**HEM**atopoietic cell **ID**entity: genetic and epigenetic regulation in normal and malignant hematopoiesis) www.hemid.eu (€ 255,444.00)
2010 – 2013	FWF stand-alone project #P22282-B11 "Regulo-Interactome Modules of Hematopoietic Stem Cells" (€ 312,039.00)
2004 – 2007	Vienna Biocenter International PhD Program Fellowship, funded by the Austrian Science Fund (FWF).

Prizes and Scholarships

2012	Research Prize of the Austrian Association of Molecular Life Sciences and Biotechnology for the publication: Targeting the SH2-kinase interface in Bcr-Abl inhibits leukemogenesis. ***Cell***, Oct 14; 147(2):306-19.
2007	NIAID Keystone Symposia Scholarship for the Meeting: "Jaks, Stats and Immunity", Steamboat Springs, Colorado, USA
2005	Sanofi-Aventis Prize for the publication: Evidence for a size-sensing mechanism in animal cells. ***Nat Cell Biol*** 6(9): 899-905.
2002	First poster prize, IMP Recess

Memberships

American Society of Hematology
Austrian Association of Molecular Life Sciences and Biotechnology

Career-related activities

2013	Organizer of the international workshop "*Applications of Proteomics in Cell Biology*", March 2013, Vienna, Austria
2005 – present	Primary supervision of 4 PhD students, 1 diploma student
2010 – 2013	Radiation safety officer, CeMM Vienna

Publications

>950 citations, h-index: 15 (Google scholar citations, May 2015)

1. Grebien F*, Vedadi M*, Getlik M*, Giambruno R, Grover A, Avellino R, Skucha A, Vittori S, Kuznetsova E, Smil D, Barsyte-Lovejoy D, Li F, Poda G, Schapira M, Wu H, Dong A, Senisterra G, Stukalov A, Huber KVM, Schönegger A, Marcellus R, Bilban M, Bock C, Brown PJ, Zuber J, Bennett KL, Al-awar R, Delwel R, Nerlov C, Arrowsmith CH, Superti-Furga G (2015) Pharmacological targeting of the Wdr5-MLL interaction in C/EBPα N-terminal leukemia. ***Nat Chem Biol***, in press. *(* equal contribution)*

2. Pencik J, Schlederer M, Gruber W, Unger C, Walker S, Chalaris A, Marié IJ, Hassler MR, Javaheri T, Aksoy O, Blayney JK, Prutsch N, Skucha A, Herac M, Krämer O, Mazal P, Grebien F, Egger G, Poli V, Mikulits W, Eferl R, Esterbauer H, Kennedy R, Fend F, Scharpf M, Braun M, Perner S, Levy DE, Malcolm T, Turner S, Haitel A, Susani M, Moazzami A, Rose-John S, Aberger F, Merkel O, Moriggl R, Culig Z, Dolznig H, Kenner L (2015) STAT3 regulated ARF expression suppresses prostate cancer metastasis. ***Nat Commun***, in press.

3. Grundschober E, Hoelbl-Kovacic A, Bhagwat N, Kovacic B, Scheicher R, Eckelhart E, Kollmann K, Keller M, Grebien F, Wagner KU, Levine RL, Sexl V (2014) Acceleration of Bcr-Abl^{+} leukemia induced by deletion of JAK2. **Leukemia**, Sep;28(9):1918-22

4. Li J, Bennett K, Stukalov A, Fang B, Zhang G, Yoshida T, Okamoto I, Kim JY, Song L, Bai Y, Qian X, Rawal B, Schell M, Grebien F, Winter G, Rix U, Eschrich S, Colinge J, Koomen J, Superti-Furga G, Haura EB (2013) Perturbation of the mutated EGFR interactome identifies vulnerabilities and resistance mechanisms. ***Mol Syst Biol***, Nov 5;9:705

5. Giambruno R*, Grebien F*, Stukalov A, Knoll C, Planyavsky M, Rudashevskaya EL, Colinge J, Superti-Furga G, Bennett KL (2013) Affinity Purification Strategies for Proteomic Analysis of Transcription Factor Complexes. ***J Proteome Res,*** Sep 6;12(9):4018-27. *(* equal contribution)*

6. Winter GE, Rix U, Carlson SM, Gleixner KV, Grebien F, Gridling M, Müller AC, Breitwieser FP, Bilban M, Colinge J, Valent P, Bennett KL, White FM, Superti-Furga G (2012) Systems-pharmacology dissection of a drug synergy in imatinib-resistant CML. ***Nat Chem Biol*** Nov;8(11):905-12.

7. Hantschel O, Grebien F, Superti-Furga G (2012) The growing arsenal of ATP-competitive and allosteric inhibitors of BCR-ABL. ***Cancer Res,*** Oct 1; 72(19):4890-5.

8. Haura EB, Sacco R, Li J, Mueller A, Grebien F, Superti-Furga G, Bennett KL (2012) Optimisation of downscaled tandem affinity purifications to identify core protein complexes. ***J Integr OMICS***, May; 2(1):55-68.

9. Hantschel O, Warsch W, Eckelhart E, Kaupe I, Grebien F, Wagner KU, Superti-Furga G, Sexl V (2012) BCR-ABL uncouples canonical JAK2-STAT5 signaling in chronic myeloid leukemia. ***Nat Chem Biol,*** Jan 29; 8(3):285-93.

10. Hantschel O, Grebien F, Superti-Furga G (2011) Targeting allosteric regulatory modules in oncoproteins: "drugging the undruggable". ***Oncotarget***, Nov; 2(11):828-9.

11. Grebien F*, Hantschel O*, Wojcik J, Kaupe I, Kovacic B, Wyrzucki AM, Gish GD, Cerny-Reiterer S, Koide A, Beug H, Pawson T, Valent P, Koide S, Superti-Furga G (2011) Targeting the SH2-kinase interface in Bcr-Abl inhibits leukemogenesis. ***Cell***, Oct 14; 147(2):306-19. *(* equal contribution)*

12. Haura EB, Müller A, Breitwieser FP, Li J, Grebien F, Colinge J, Bennett KL (2011) Using iTRAQ combined with tandem affinity purification to enhance low-abundance proteins associated with somatically mutated EGFR core complexes in lung cancer. ***J Proteome Res***, Jan 7; 10(1):182-190.

13. Baumann CL, Aspalter IM, Sharif O, Pichlmair A, Blüml S, Grebien F, Bruckner M, Pasierbek P, Aumayr K, Planyavsky M, Bennett KL, Colinge J, Knapp S, Superti-Furga G (2010) CD14 is a coreceptor of Toll-like receptors 7 and 9. ***J Exp Med***, Nov 22; 207(12): 2689-701.

14. Wojcik J, Hantschel O, Grebien F, Kaupe I, Bennett KL, Barkinge J, Jones RB, Koide A, Superti-Furga G, Koide S (2010) A potent and highly specific FN3 monobody inhibitor of the Abl SH2 domain. ***Nat Struct Mol Biol***, Apr; 17(4):519-27.

15. Hoelbl A, Schuster C, Kovacic B, Zhu B, Wickre M, Hoelzl MA, Fajmann S, Grebien F, Warsch W, Stengl G, Hennighausen L, Poli V, Beug H, Moriggl R, Sexl V (2010) Stat5 is indispensable for the maintenance of bcr/abl-positive leukaemia. ***EMBO Mol Med***, Mar; 2(3):98-110.

16. Filippakopoulos P, Kofler M, Hantschel O, Gish GD, Grebien F, Salah E, Neudecker P, Kay LE, Turk BE, Superti-Furga G, Pawson T, Knapp S (2008) Structural coupling of SH2-kinase domains links Fes and Abl substrate recognition and kinase activation. ***Cell***, Sep 5; 134(5):793-803.

17. Kerenyi MA*, Grebien F*, Gehart H, Schifrer M, Artaker M, Kovacic B, Beug H, Moriggl R, Mullner EW (2008) Stat5 regulates cellular iron uptake of erythroid cells via IRP-2 and TfR-1. ***Blood***, Nov 1; 112(9):3878-88. *(* equal contribution)*

18. Kornfeld J, Grebien F, Kerenyi MA, Friedbichler K, Kovacic B, Zankl B, Hoelbl A, Nivarti H, Beug H, Sexl V, Müller M, Kenner L, Mullner EW, Gouilleux F, Moriggl R (2008) The Different Functions of Stat5 and Chromatin Alteration through Stat5 Proteins. ***Front Biosci***, May 1; 13:6237-54.

19. Grebien F, Kerenyi MA, Kovacic B, Kolbe T, Becker V, Dolznig H, Pfeffer K, Klingmueller U, Mueller M, Beug H, Mullner EW, Moriggl R (2008) Stat5 activation enables erythropoiesis in the absence of EpoR and Jak2. ***Blood***, May 1; 111(9):4511-22

20. Dolznig H*, Grebien F*, Deiner EM*, Stangl K, Kolbus A, Habermann B, Kerenyi MA, Kieslinger M, Moriggl R, Beug H, Mullner, EW (2006) Erythroid progenitor renewal versus differentiation: genetic evidence for cell autonomous, essential functions of EpoR, Stat5 and the GR. ***Oncogene***, 25(20): 2890-2900 *(* equal contribution)*

21. Grebien F*, Dolznig H*, Beug H, Mullner EW (2005) Cell size control: new evidence for a general mechanism. ***Cell Cycle***, 4(3): 418-421 *(* equal contribution)*

22. Dolznig H*, Grebien F*, Sauer T, Beug H, Mullner EW (2004) Evidence for a size-sensing mechanism in animal cells. ***Nat Cell Biol***, 6(9): 899-905. *(* equal contribution)*

Selected Oral presentations (International)

Recruitment of the MLL complex via specific interaction of the p30 variant of C/EBPa with Wdr5 is essential for development of acute myeloid leukemia. *42nd Annual meeting of the ISEH – Society for Hematology and Stem Cells*, August 25, 2013, Vienna, Austria

Functional studies of leukemia oncoproteins using integrated approaches. *Ludwig Boltzmann Institute for Cancer Research*, July 8, 2013, Vienna, Austria (invited lecture)

An Optimized Strategy for Proteomic Analysis of Transcription Factor Complexes in Leukaemia. Late *Summer Practical Proteomics Seminar*, August 28, 2012, Vienna, Austria (invited lecture).

Combined genomic and proteomic analysis reveals gain-of-function features of the leukemic p30 variant of the CEBPA transcription factor. *41st Annual meeting of the ISEH – Society for Hematology and Stem Cells*, August 25, 2012, Amsterdam, The Netherlands

Tandem Affinity purification: a versatile tool for proteomic and genomic analysis of transcription factor complexes. *Workshop on Functional and Structural Proteomics*, October 7, 2011, Athens, Greece (invited lecture).

Targeting the SH2-kinase interface in Bcr-Abl inhibits leukemogenesis. *Ludwig Boltzmann Cluster Oncology,* September 9, 2011, Vienna, Austria (invited lecture).

Genomic and proteomic characterization of normal and oncogenic CEBPA variants in myeloid cells. *Keystone Meeting "Omics Meets Cell Biology"*, May 12, 2011, Alpbach, Austria

Persistent STAT5 activation supports functional erythropoiesis in the absence of Jak2 and EpoR. *Keystone Meeting "Jaks, Stats and Immunity",* Jan 7, 2007, Steamboat Springs, USA