Andrea Ventura, MD/PhD

Member
Cancer Biology and Genetics Program
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Educational Background

1997 **Medical Degree**
Catholic University Medical School, Rome, Italy.

1998 **Internship and Medical Board Certification**

2003 **PhD in molecular and cellular biology**
Open University, London, UK.
European Institute of Oncology, Milan, Italy

Research Experience

1991-1997 **Medical Student**
Catholic University Medical School, Rome, Italy.
M.D. awarded in July 1997 with distinction *summa cum laude.*
Laboratory of Giovanni Neri.
Thesis: Cloning and characterization of alternative isoforms of the *Mlh1* and *Msh2* genes.

1995 **Visiting Student**
University of California, San Diego, USA
Laboratory of Richard Boland

1998 **Part-time research work.**
Istituto Mario Negri Sud, Chieti, Italy
Laboratory of Dr. Arturo Sala.
Title: Regulation of the MYB oncogene

1999-2003 **Graduate Student**
Open University, London, UK.
European Institute of Oncology, Milan, Italy
Laboratory of Pier Giuseppe Pelicci
Title: Transcriptional regulation and subcellular localization of SHC isoforms.

2003-2008 **Postdoctoral Fellow**
MIT
Center for Cancer Research, Cambridge, MA
Laboratory of Tyler Jacks
Title: Modeling tumor suppressor gene reactivation and defining the biological functions of an oncogenic polycistronic miRNA cluster.

Professional Positions and Employment

2018-present **Member**
Cancer Biology and Genetics Program
Memorial Sloan Kettering Cancer Center, NY 10065

2018-present **Professor**
Cell & Developmental Biology
Weill Cornell Medicine, NY 10065

2014-present **Associate Member**
Cancer Biology and Genetics Program
Memorial Sloan Kettering Cancer Center, NY 10065
2014-present **Associate Professor**
Cell & Developmental Biology
Weill Cornell Medicine, NY 10065

2008-2014 **Assistant Member**
Cancer Biology and Genetics Program
Memorial Sloan Kettering Cancer Center, NY 10065
2008-2014 **Assistant Professor**
Cell & Developmental Biology
Weill Cornell Medicine, NY 10065

Awards, Honors and Patents

2016	Pershing Square Sohn Cancer Research Alliance Award
2013	Lumera d'argento award, Roccalumera, Italy
2009	Sidney Kimmel Scholar Award
2008-2013	Geoffrey Beene Junior Investigator Chair
2007	Forbeck Scholar Award
2004-5	Postdoctoral Fellowship American Italian Cancer Research Foundation
2000-2	Research fellowship from Italian Association for Cancer Research

Teaching

2024-present	Mouse model of cancer lecture series for the Cancer Engineering Program, MSKCC.
2017-2020	Summer School on Cancer Biology, Lipari, Italy.
2010-present	Cancer Genetic Lecture for the Molecular Genetics Course at WCMS
2015	GSK Core Course: Mouse models of human cancer
2013	GSK Core Course: Methods of experimental perturbation of gene expression and function in culture.
2005	Undergraduate course on RNAi at the Massachusetts Institute of Technology

Academic Service

2017-present	Director, Mouse Genetics Services
2016-2018	Advisory Board Yale Lung SPORE
2013-preseent	GES Core Oversight Committee Member
2017	RSVP SKI Working Group Member
2009-present	GSK graduate student program interviewer
2009-present	Tri-I MD-PhD program interviewer

Presentations (limited to the period 2010-2025)

2025 **AACR annual meeting, Chicago. Invited Speaker.**
Netherland Cancer Institute, Amsterdam. Invited Speaker.
EACR annual meeting, Lisbon. Invited Speaker.
Pancreatic Cancer Meeting, Lisbon. Invited Speaker.
IFOM, Milan. Invited Speaker.
CMRT meeting, Utah. Invited Speaker
Francis Crick Institute, London. Invited Speaker.

University of Rome, La Sapienza. Invited Speaker.
Institute Champolimaud for Cancer Research, Lisbon. Invited Speaker.

2024 **Cancer Gran Challenge Annual Meeting. London. Invited Speaker.**
Dark genome conference, NY, invited speaker
Genentech. Invited speaker.
Summer School of Cancer Biology, Lisbon, Portugal. Invited speaker and lecturer.
Catholic University Medical School. Rome. Invited Seminar Speaker
Bicocca University, Milan, Invited Speaker.
Moffit Cancer Center. Invited Seminar Speaker.

2023 **Structural Variants and Repetitive Sequences Meeting. Stanford, CA. Invited Speaker.**
Fusion Conference on Mouse Models of Cancer. Lisbon, Portugal. Invited Speaker.

2022 **Aegean Conference on the short and long of non-coding RNAs. Invited Speaker.**
Dana Farber Cancer Institute. Invited Speaker.
Italian Society of Biophysics and Moleculer Biology Meeting. Rome. Invited Speaker.

2021 **Harvard University, Beth Israel Hopsiptal. RNA Medicine Symposium, invited speaker.**

2020 **AACR: Mouse models of cancer meeting. Sand Diego, Cal. Invited Speaker**
Sensei Life Sciences Symposium. Kyoto. Japan. Invited Speaker
University of Virginia (UVA). Invited speaker.

2019 **Aspen Cancer Symposium. Aspen, Colorado. Invited Speaker**
2019 Aegean Conference on non-coding RNAs. Invited Speaker.
Lipari Summer School of Cancer Biology. Co-organizer and teacher.
Ohio State University, Columbus, Ohio. Invited Speaker.
University of Messina, Italy. Invited Speaker.

2018 **AACR: annual meeting. Chicago, Ill. Invited Speaker and Workshop organizer.**
University of Colorado. Denver. Keynote speaker at Annual Postdoctoral Symposium
UTSW, Dallas/ TX. Invited Speaker.
Lipari Summer School on Cancer Biology/ Co-organizer and lecturer.
European Institute of Oncology, Milan. Invited Speaker
University of Massachusetts, Worcester. Seminar Series. Invited Speaker.
New York University. Nanoseminaries. Invited Speaker.
Princess Takamatsu Symposium. Tokyo, Japan. Invited Speaker.

2017 **AACR: Special Conference on Advances in Modeling Cancer in Mice: Technology, Biology, and Beyond. Orland, Florida. Invited Speaker**
Moffit Cancer Center, Tampa, FL – Seminar Speaker
Purdue University, Purdue, IN – Seminar Speaker
Non coding RNAs in metabolism and diseases conference, Baeza, Spain. Invited Speaker
2nd Aegean Conference on and long and short of non-coding RNAs. Heraclion, Greece – Invited Speaker
Lipari Summer School on cancer Biology, Lipari, Sicily – Co-organizer and speaker
Thomas Jefferson University, Philadelphia – Seminar Speaker

2016 **Society for Laboratory Automation and Screening – 5th Annual International Conference and Exhibition (San Diego, CA; invited speaker)**

Indiana University Simon Cancer Center – Grand Rounds seminar (Indianapolis, IN; seminar speaker)
NYU Langone Medical Center – Perlmutter Cancer Center Research Seminar Series (New York, NY; seminar speaker)
Stanford University Medical School – Cancer Biology Seminar (Stanford, CA; seminar speaker)
Gordon Research Conference – DNA Damage, Mutation, & Cancer (Ventura, CA; invited speaker)
Yale University – Department of Molecular, Cellular and Developmental Biology Seminar (New Haven, CT; seminar speaker)
University of North Carolina Chapel Hill – Department of Pharmacology Spring Seminar (Chapel Hill, NC; seminar speaker)
Icahn School of Medicine at Mount Sinai – Practical Cancer Genomics lecture (New York, NY; seminar speaker)
Microbiology and Microbiome-Based Medicine Meeting (Lipari Island, Italy; invited speaker)
MD Anderson Cancer Center – Experimental Therapeutics Seminar (Houston, TX; seminar speaker)

2015 **CSHL symposium on CRIPSR genome editing. Invited speaker.**
Novartis, Switzerland. Invited Speaker.
Summer School on RNA as targets and therapeutics, Saas-Fee, Switzerland. Invited speaker.
Mount Sinai Medical School, New York, NY, (invited speaker)
Fred Hutchinson Cancer Center, Seattle, WA (invited speaker)
St. Judes Cancer Center, Memphis (invited speaker)
AACR meeting (Philadelphia; invited speaker)
NKI Symposium (Amsterdam; invited speaker)
Aegean Conference on non-coding RNAs. Chania, Greece. Invited speaker.
Keystone Symposium on non-coding RNAs and cancer. Invited speaker.
AACR Symposium on non-coding RNAs, Boston. Invited Speaker.

2014 **Scripps Research Institute (invited speaker)**
International Conference "Non-coding RNA – from Basic Mechanisms to Cancer". Heidelberg, Germany. Invited Speaker.
University of Messina, Italy. Invited speaker.
ASRI Conference. New York. Invited Speaker.
International Meeting for the German Society for Cell Biology (DGZ). Regensburg, Germany. Invited Speaker.
Harvard University. Boston, MA. Seminar
MMHCC January 2014 Steering Committee Meeting. Rockville, MD. Invited Speaker.

2013 **International Annual Meeting of Cochin Institute. Paris, France. Invited Speaker.**
STARR Symposium. CSHL. Platform presentation.
Genentech, San Francisco. Invited Speaker.
BRIC Institute. Copenhagen, Denmark. Invited Speaker.
Italian Institute of Technology. Milan. Italy. Invited Speaker.
AEGH Annual Meeting. Madrid, Spain. Invited Speaker.
AACR Annual Meeting. Washington. Invited Speaker.
Keystone Symposium "non-coding RNAs and cancer". Vancouver, Canada. Invited Speaker.

2012 **Annual Meeting of the American Society of Human Genetics. San Francisco. Invited Speaker.**
Rutgers University. Seminar.
New York University Medical School. Seminar.
Albert Einstein University. Seminar.

UNJMS Seminar speaker.

2011 **Dana Farber Cancer Institute, Seminars in Oncology. Invited speaker.**
OTS meeting, Copenhagen, Denmark. Invited Speaker.
Leuven University. Belgium. Invited Speaker.
Life Science Symposium. Lausanne, Switzerland. Invited Speaker.
XXI Nikolas Symposium. Greece. Invited Speaker.
2nd mid-Atlantic MicroRNA Mini-Symposium. Philadelphia. Invited speaker.
Keystone Symposium on non-coding RNAs and Cancer, Banff, Canada. Invited Speaker.
Mount Sinai Medical School. Invited Speaker.

2010 **Yonsei University, Seoul, South Korea. Invited Speaker.**
Forbeck Scholar Retreat. Speaker.
Carnegie Institution. Invited seminar speaker.
NRCI, Liverpool Cancer Meeting. Invited Speaker.
CSHL Mechanism and Models of Cancer. Invited Speaker.
American Association for Cancer Research Meeting. Washington DC. Invited Speaker.
University of North Carolina. Non-coding RNAs Symposium. Invited Speaker.
MicroRNAs and human diseases. Saint Kitts. Invited Speaker.
University College of London. microRNAs and Cancer. Invited Speaker.

Grants Reviews and Study Sections

2020 NIH/ PAR- 20-085: Pilot Centers for Precision Disease Modeling (U54). Ad hoc Member.
2017 NIH/NCI CAMP Meeting 2017/05 ZCA1-RPRB-O-M1. Ad hoc Member.
2016 NIH/NCI CSR Meeting 2017/01 CAMP. Ad hoc Member.
2016 NIH/NCI Meeting 2016/05 ZCA1-RPRB-C-M1. Ad hoc Member.
2015 NIH.NCI R03 & R21 study section. Study Section Member.
2013 NIH/NIEHS ES12-006 (R21) and ES12-007(R01). Study Section Member.
2011 American Cancer Society. Grants and fellowship reviewer.
2010 NCI/NIH Molecular Oncology PO1 Study Section. Ad hoc member.
2009 NCI/NIH Molecular Oncology PO1 Study Section. Ad hoc member.

Publications (Published and in press)

Original research

1. Henri Schmidt, Minsi Zhang, Dimitar Chakarov, Vineet Bansal, Haralambos Mourelatos, Francisco J Sánchez-Rivera, Scott W Lowe, Andrea Ventura, Christina S Leslie, Yuri Pritykin. Genome-wide CRISPR guide RNA design and specificity analysis with GuideScan2. ***Genome Biology*** 26, 41 (2025).

2. Imran Noorani, Magnus Haughey, Jens Luebeck, Andrew Rowan, Eva Grönroos, Francesco Terenzi, Ivy Tsz-Lo Wong, Davide Pradella, Marta Lisi, Jeanette Kittel, Natasha Sharma, Chris Bailey, Clare E Weeden, Donald M Bell, Eric Joo, Vittorio Barbè, Matthew G Jones, King L Hung, Emma L Nye, Mary Green, Lucy Meader, Emma J Norton, Mark Fabian, Nnennaya Kanu, Mariam Jamal-Hanjani, Thomas Santarius, Andrea Ventura, James AR Nicoll, Delphine Boche, Howard Y Chang, Vineet Bafna, Weini Huang, Paul S Mischel, Charles Swanton, Benjamin Werner. Extrachromosomal DNA–Driven Oncogene Spatial Heterogeneity and Evolution in Glioblastoma**.** ***Cancer Discovery*** (2025) 15 (10): 2078–2095.

3. Alyssa Shepard, Daniel K Lester, Scott Troutman, Sany Hoxha, Walid T Khaled, Ewan St J Smith, Thomas J Park, Rochelle Buffenstein, Dongliang Du, Mingxiang Teng, Christine M

Dengler-Crish, Kenneth Y Tsai, Elsa R Flores, Andrea Ventura, Joseph L Kissil. ***Cancer Discovery*** 2026;XX:1–11.

4. Brückner L, Xu R, Tang J, Herrmann A, Wong IT, Zhang S, Tu F, Pilon M, Kukalev A, Pardon K, Sidorova O, Atta J, Yu Q, Pradella D, Ilić M, Marco-Novais-Cruz, Kaltenbach S, Treue D, Giurgiu M, Herzog S, Hollinger AS, Fernandez M, Becker F, Louma VR, Schmargon R, Dörr J, Gamlin D, Lehmann A, Gürgen D, Richter M, Dubois F, Simeoni F, Pennycook BR, Hamilton A, Lindemann RK, Fischer M, Bafna V, Wahl G, Koche RP, Chang HY, Papathanasiou S, Medema R, Spanjaard B, Ventura A, Pombo A, Huang W, Werner B, Mischel PS, Henssen AG. Oncogene Silencing via ecDNA Micronucleation. ***bioRxiv*** [Preprint]. 2025 Apr 18:2025.04.15.648906.

5. Davide Pradella, Minsi Zhang1, Rui Gao, Melissa A. Yao, Katarzyna M. Gluchowska, Ylenia Cendon-Florez, Tanmay Mishra, Gaspare La Rocca, Moritz Weigl, Ziqi Jiao, Hieu H. M. Nguyen, Marta Lisi, Mateusz M. Ozimek, Chiara Mastroleo, Kevin Chen, Felix Grimm, Jens Luebeck, Shu Zhang, Andrea Alice Zolli, Eric G. Sun, Bhargavi Dameracharla, Zhengqiao Zhao, Yuri Pritykin, Carlie Sigel, Howard Y. Chang, Paul S. Mischel, Vineet Bafna, Cristina R. Antonescu & Andrea Ventura. Engineered extrachromosomal oncogene amplifications promote tumorigenesis. ***Nature*** 637, 955–964 (2025). PMID: 39695225.

6. Alyssa Shepard, Scott Troutman, Sany Hoxha, Daniel Lester, Walid Khaled, Ewan St. John Smith, Thomas Park, Rochelle Buffenstein, Dongliang DuMingxiang Teng, Christine Cris h, Kenneth Y. Tsai, Elsa R. Flores, Andrea Ventura, Joseph L. Kissil An autochthonous model of lung cancer in the Naked Mole-Rat (Heterocephalus glaber). ***bioRxiv*** 2023:2023.08. 28.555115.

7. Zhen Qin, Meiting Yue, Shijie Tang, Fengying Wu, Honghua Sun, Yuan Li, Yongchang Zhang, Hiroki Izumi, Hsinyi Huang, Wanying Wang, Yun Xue, Xinyuan Tong, Shunta Mori, Tetsuro Taki, Koichi Goto, Yujuan Jin, Fei Li, Fu-Ming Li, Yijun Gao, Zhaoyuan Fang, Yisheng Fang, Liang Hu, Xiumin Yan, Guoliang Xu, Haiquan Chen, Susumu S Kobayashi, Andrea Ventura, Kwok-Kin Wong, Xueliang Zhu, Liang Chen, Shengxiang Ren, Luo-Nan Chen, Hongbin Ji. EML4-ALK fusions drive lung adeno-to-squamous transition through JAK-STAT activation. ***Journal of Experimental Medicine*** 2024;221(3):e20232028.

8. Paola Roa, Valentina Foglizzo, Guilherme Harada, Matteo Repetto, Amanda Kulick, Elisa de Stanchina, Michelle de Marchena, Supipi Auwardt, Shaza Sayed Ahmed, Nicole Virginia Bremer, Soo-Ryum Yang, Yangbo Feng, Chao Zhou, Norman Kong, Ruixia Liang, Haipeng Xu, Bin Zhang, Alberto Bardelli, Eneda Toska, Andrea Ventura, Alexander Drilon, Emiliano Cocco. Zurletrectinib is a next-generation TRK inhibitor with strong intracranial activity against NTRK fusion-positive tumours with on-target resistance to first-generation agents. ***British Journal of Cancer*** 2024:1-10.

9. Schmidt H, Zhang M, Mourelatos H, Sánchez-Rivera FJ, Lowe SW, Ventura A, Leslie CS, Pritykin Y. Genome-wide CRISPR guide RNA design and specificity analysis with GuideScan2. ***bioRxiv*** 2022:2022.05. 02.490368.

10. Shui B, Beyett TS, Chen Z, Li X, La Rocca G, Gazlay WM, Eck MJ, Lau KS, Ventura A, Haigis KM. Oncogenic K-Ras suppresses global miRNA function. ***Molecular Cell*** 2023;83(14):2509-23. e13.

11. La Rocca G, King B, Shui B, Li X, Zhang M, Akat KM, Ogrodowski P, Mastroleo C, Chen K, Cavalieri V, Ma Y, Anelli V, Betel D, Vidigal J, Tuschl T, Meister G, Thompson CB, Lindsten T, Haigis K, Ventura A. Inducible and reversible inhibition of miRNA-mediated gene repression in vivo. ***Elife*** 2021 Aug 31;10:e70948. doi: 10.7554/eLife.70948. PMID: 34463618; PMCID: PMC8476124.

12. Ciampricotti M, Karakousi T, Richards AL, Quintanal-Villalonga À, Karatza A, Caeser R, Costa EA, Allaj V, Manoj P, Spainhower KB, Kombak FE, Sanchez-Rivera FJ, Jaspers JE, Zavitsanou AM, Maddalo D, Ventura A, Rideout WM, Akama-Garren EH, Jacks T, Donoghue MTA, Sen T, Oliver TG, Poirier JT, Papagiannakopoulos T, Rudin CM. Rlf-Mycl Gene Fusion Drives

Tumorigenesis and Metastasis in a Mouse Model of Small Cell Lung Cancer. ***Cancer Discovery*** 2021 Dec 1;11(12):3214-3229. doi: 10.1158/2159-8290.CD-21-0441. PMID: 34344693; PMCID: PMC8810895.

13. Li X, Pritykin Y, Concepcion CP, Lu Y, La Rocca G, Zhang M, King B, Cook PJ, Au YW, Popow O, Paulo JA, Otis HG, Mastroleo C, Ogrodowski P, Schreiner R, Haigis KM, Betel D, Leslie CS, Ventura A. High-Resolution In Vivo Identification of miRNA Targets by Halo-Enhanced Ago2 Pull-Down. ***Molecular Cell*** 2020 May 29: S1097-2765(20)30310-5. doi: 10.1016/j.molcel.2020.05.009. Epub ahead of print. PMID: 32497496.

14. Cocco E., J.E. Lee, S. Kannan, A.M. Schram, H.H. Won, S. Shifman, A. Kulick, L. Baldino, E. Toska, A. Arruabarrena-Aristorena, S. Kittane, F. Wu, Y. Cai, S. Arena, B. Mussolin, R. Kannan, N. Vasan, A.N. Gorelick, M.F. Berger, O. Novoplansky, S. Jagadeeshan, Y. Liao, U. Rix, S. Misale, B.S. Taylor, A. Bardelli, J.F. Hechtman, D.M. Hyman, M. Elkabets, E. de Stanchina, C.S. Verma, A. Ventura, A. Drilon, and M. Scaltriti, TRK xDFG mutations trigger a sensitivity switch from type I to II kinase inhibitors. ***Cancer Discovery*** 2020.

15. Luisa F. Escobar-Hoyos, Alex Penson, Ram Kannan, Hana Cho, Chun-Hao Pan, Rohit K. Singh, Lisa H. Apken, G. Aaron Hobbs, Renhe Luo, Nicolas Lecomte, Sruthi Babu, Fong Cheng Pan, Direna Alonso-Curbelo, John P. Morris IV, Gokce Askan, Olivera Grbovic-Huezo, Paul Ogrodowski, Jonathan Bermeo, Joseph Saglimbeni, Cristian D. Cruz, Yu-Jui Ho, Sharon A. Lawrence, Jerry P. Melchor, Grant A. Goda, Karen Bai, Alessandro Pastore. Simon J. Hogg. Srivatsan Raghavan, Peter Bailey, David K. Chang, Andrew Biankin, Kenneth R. Shroyer, Brian M. Wolpin. Andrew J. Aguirre, Andrea Ventura, Barry Taylor, Channing J. Der, Daniel Dominguez, Daniel Kümmel, Andrea Oeckinghaus, Scott W. Lowe, Robert K. Bradley, Omar Abdel-Wahab, Steven D. Leach. Altered RNA Splicing by Mutant p53 Activates Oncogenic RAS Signaling in Pancreatic Cancer. ***Cancer Cell***, June 18, 2020, DOI: https://doi.org/10.1016/j.ccell.2020.05.010.

16. Bonetti P, Climent M, Panebianco F, Tordonato C, Santoro A, Marzi MJ, Pelicci PG, Ventura A, Nicassio F. Correction: Dual role for miR-34a in the control of early progenitor proliferation and commitment in the mammary gland and in breast cancer. ***Oncogene*** 2020 Mar;39(10):2228. doi: 10.1038/s41388-019-1094-x.

17. Zheng J, Sadot E, Vigidal JA, Klimstra DS, Balachandran VP, Kingham TP, Allen PJ, D'Angelica MI, DeMatteo RP, Jarnagin WR, and Ventura A. Characterization of hepatocellular adenoma and carcinoma using microRNA profiling and targeted gene sequencing. ***PLoS One*** 2018 Jul 27;13(7): e0200776. doi: 10.1371/journal.pone.0200776. eCollection 2018. PubMed PMID: 30052636; PubMed Central PMCID: PMC6063411.

18. Franz X. Schaub, Varsha Dhankani, Ashton C. Berger, Mihir Trivedi, Anne B. Richardson, Reid Shaw, Wei Zhao, Xiaoyang Zhang, Andrea Ventura, Yuexin Liu, Donald E. Ayer, Peter J. Hurlin, Andrew D. Cherniack, Robert N. Eisenman, Brady Bernard, Carla Grandori and the Cancer Genome Atlas Network. ***Cell Systems*** 2018 Mar 28;6(3):282-300.e2. doi: 10.1016/j.cels.2018.03.003.

19. Perez, A.&, Pritykin, Y.&, Vidigal, J.&*, Chhangawala, S., Zamparo, L., Leslie, C.*, and Ventura, A. GuideScan software for improved single and paired CRISPR guide RNA design. ***Nature Biotechnology*** 2017 Apr;35(4):347-349. PMID: 28263296. PMCID: PMC5607865 (* corresponding authors, & equally contributing authors)

20. Cook PJ, Thomas R, Kannan R, de Leon ES, Drilon A, Rosenblum MK, Scaltriti M, Benezra R, Ventura A. Somatic chromosomal engineering identifies BCAN-NTRK1 as a potent glioma driver and therapeutic target. ***Nature Communications*** 2017;8:15987. PubMed PMID: 28695888 PMCID:PMC5508201.

21. Andolina, D., Di Segni, M., Bisicchia, E., D'Alessandro, F., Cestari, V., Ventura, A., Concepcion, C., Puglisi-Allegra, S., and Ventura, R. (2016). Effects of lack of microRNA-34 on the neural circuitry underlying the stress response and anxiety. ***Neuropharmacology*** *107*, 305-316.

22. Correa-Gallego, C., Maddalo, D., Doussot, A., Kemeny, N., Kingham, T.P., Allen, P.J., D'Angelica, M.I., DeMatteo, R.P., Betel, D., Klimstra, D., *et al.* (2016). Circulating Plasma Levels of MicroRNA-21 and MicroRNA-221 Are Potential Diagnostic Markers for Primary Intrahepatic Cholangiocarcinoma. **PLoS One** *11*, e0163699

23. Joana A. Vidigal and Andrea Ventura. Rapid and efficient one-step generation of paired gRNA CRISPR/*Cas9* libraries. ***Nature Communications*** 2015 Aug 17; 6:8083. doi: 10.1038/ncomms9083. PubMed PMID: 26278926.

24. Yoon-Chi Han*, Joana A. Vidigal*, Ping Mu*, Evelyn Yao, Irtisha Singh, Alvaro Gonzalez, Carla P. Concepcion, Ciro Bonetti, Paul Ogrodowski, Brett Carver, Licia Selleri, Christina Leslie, Doron Betel, and Andrea Ventura. An allelic series of miR-17~92 mutant mice uncovers functional specialization and cooperation among members of a miRNA polycistron. ***Nature Genetics*** 2015 Jun 1. doi: 10.1038/ng.3321. [Epub ahead of print] PubMed PMID: 26029871. *Equal contibution.

25. Fiori E, Babicola L, Andolina D, Coassin A, Pascucci T, Patella L, Han YC, Ventura A, Ventura R. Neurobehavioral Alterations in a Genetic Murine Model of Feingold Syndrome 2. ***Behavior Genetics*** 2015 Sep;45(5):547-59. doi: 10.1007/s10519-015-9724-8. Epub 2015 May 31. PMID: 26026879; PMCID: PMC4561592.

26. La Rocca G, Olejniczak SH, González AJ, Briskin D, Vidigal JA, Spraggon L, DeMatteo RG, Radler MR, Lindsten T, Ventura A, Tuschl T, Leslie CS, Thompson CB. In vivo, Argonaute-bound microRNAs exist predominantly in a reservoir of low molecular weight complexes not associated with mRNA. ***Proceedings of the National Academy of Science U. S. A.*** 2015 Jan 20;112(3):767-72. doi: 10.1073/pnas.1424217112. Epub 2015 Jan 7. PMID: 25568082; PMCID: PMC4311832.

27. Danilo Maddalo, Eusebio Manchado, Carla P. Concepcion, Ciro Bonetti, Joana A. Vidigal, Yoon-Chi Han, Paul Ogrodowski, Alessandra Crippa, Natasha Rekhtman, Elisa de Stanchina, Scott W. Lowe, and Andrea Ventura. *In vivo* engineering of oncogenic chromosomal rearrangements with the CRISPR/Cas9 system. ***Nature*** (2014) NIHMS: NIHMS632589 PMID: PMID: 25337876.

28. Frederique Zindy, Daisuke Kawauchi, Youngsoo Lee, Olivier Ayrault, Leila Ben Merzoug, Peter J. McKinnon, Andrea Ventura and Martine F. Roussel. Role of the miR-17 approximately 92 cluster family in cerebellar and medulloblastoma development. ***Biology Open*** 3, 597-605 (2014). PMCID: PMC4154296.

29. Carla P. Concepcion, Yoon-Chi Han, Ping Mu, Ciro Bonetti, Evelyn Yao, Aleco D'Andrea, Joana A. Vidigal, William P. Maughan, Paul Ogrodowski and Andrea Ventura . Intact p53-dependent responses in miR-34-deficient mice. ***PLoS Genetics*** 8, e1002797 (2012). PMCID: PMC3406012.

30. Jr-Shiuan Yang, Michael D. Phillips, Doron Betel, Ping Mu, Andrea Ventura, Adam C. Siepel, Kevin C. Chen and Eric C. Lai. Widespread regulatory activity of vertebrate microRNA* species. ***RNA*** 17, 312-326 (2011). PMCID: PMC3022280

31. Ashish Lal, Marshall P. Thomas, Gabriel Altschuler, Francisco Navarro, Elizabeth O'Day, Xiao Ling Li, Carla Concepcion, Yoon-Chi Han, Jerome Thiery, Danielle K. Rajani, Aaron Deutsch, Oliver Hofmann, Andrea Ventura, Winston Hide and Judy Lieberman. Capture of microRNA-bound mRNAs identifies the tumor suppressor miR-34a as a regulator of growth factor signaling. ***PLoS Genetics*** 7, e1002363 (2011). PMCID: PMC3213160.

32. Loïc de Pontual[&], Evelyn Yao[&], Patrick Callier, Laurence Faivre, Valérie Drouin, Sandra Cariou, Arie Van Haeringen, David Geneviève, Alice Goldenberg, Myriam Oufadem, Sylvie Manouvrier, Arnold Munnich, Joana Alves Vidigal, Michel Vekemans, Stanislas Lyonnet, Alexandra Henrion-Caude, Andrea Ventura* and Jeanne Amiel*. Germline deletion of the miR-17 approximately 92 cluster causes skeletal and growth defects in humans. ***Nature Genetics*** 43, 1026-1030 (2011). *corresponding authors. [&] Equal contribution. PMCID: PMC3184212

33. Massimiliano Agostini, Paola Tucci, Joern R. Steinert, Ruby Shalom-Feuerstein, Matthieu Rouleau, Daniel Aberdam, Ian D. Forsythe, Kenneth W. Young, Andrea Ventura, Carla P. Concepcion, Yoon-Chi Han, Eleonora Candi, Richard A. Knight, Tak W. Mak and Gerry Melino. microRNA-34a regulates neurite outgrowth, spinal morphology, and function. ***Proceedings of the National Academy of Science U.S.A.*** 108, 21099-21104 (2011). PMCID: PMC3248521

34. Ping Mu*, Yoon-Chi Han*, Doron Betel, Evelyn Yao, Massimo Squatrito, Paul Ogrodowski, Elisa de Stanchina, Aleco D'Andrea, Chris Sander and Andrea Ventura. Genetic dissection of the miR-17~92 cluster of microRNAs in Myc-induced B-cell lymphomas. ***Genes & Development*** 23, 2806-2811 (2009). PMCID: PMC2800095. *Equal contibution.

35. Andrea Ventura, Amanda G. Young, Monte M. Winslow, Laura Lintault, Alex Meissner, Stefan J. Erkeland, Jamie Newman, Roderick T. Bronson, Denise Crowley, James R. Stone, Rudolf Jaenisch, Phillip A. Sharp and Tyler Jacks. Targeted deletion reveals essential and overlapping functions of the miR-17 through 92 family of miRNA clusters. ***Cell*** 132, 875-886 (2008). PMCID: PMC2323338.

36. Andrea Ventura*, David G. Kirsch*, Margaret E. McLaughlin, David A. Tuveson, Jan Grimm, Laura Lintault, Jamie Newman, Elizabeth E. Reczek, Ralph Weissleder and Tyler Jacks. Restoration of p53 function leads to tumour regression in vivo. ***Nature*** 445, 661-665 (2007). *equal contribution. PubMed PMID: 17251932 *Equal contibution.

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