

CURRICULUM VITAE

Name: Salvador Aznar Benitah

Place and date of birth: Montreal (Canada), 12/06/1975

Languages: English, Spanish, Catalán (mid-level), French, Hebrew (reading level)

URL: <https://www.irbbarcelona.org/es/research/stem-cells-and-cancer>

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Current Position

Since 2014: ICREA Professor at IRB Barcelona (Stem cells and Cancer Laboratory)

2019: Founder of ONA Therapeutics to develop clinical grade antibodies for anti-metastasis therapies

Education and Previous Positions

2007-2013: **Junior ICREA Group Leader**, Center for Genomic Regulation (Barcelona)

2003-2006: **Postdoctoral fellow**, London Research Institute, Cancer Research UK (UK)

1998-2002: **PhD (cum laude)**, Biomedical Research Institute (Madrid, Spain)

1997-1998: **Masters in Biochemistry**, McGill University, (Montreal, Canada)

1993-1998: **Bsc Biochemistry/Molecular Biology (Honours degree)**, McGill University (Canada)

Fellowships and Awards

- **2020:** Lilliane Bettencourt Award for Life Sciences
- **2019:** Constantes Vitales Axa/Atresmedia Award in Life Sciences
- **2019:** Carmen and Severo Ochoa Award in Life Sciences
- **2019:** AECC grant
- **2019:** *Foundation Serra* in Biomedicine Award (to be awarded in May)
- **2018:** *Foundation Pfizer* Award
- **2018:** Elected *EMBO Member*
- **2018:** ERC Advanced Grant
- **2017:** *Bank Caja Rural National Award* for Life Sciences
- **2017:** *City of Barcelona Award* for Life Sciences
- **2017:** *Catalan Society of Biology Award* best publication of the year (Pascual *et al.*, Nature, 2017)
- **2016:** *National Diz Pintado Award* in Biomedicine
- **2015:** *Banc Sabadell Award* in Biomedicine
- **2014:** *Foundation Botín* Award
- **2013:** *Beug Foundation* Award for Metastasis Research
- **2013:** ERC Starting Grant
- **2013:** *ICREA Researcher*
- **2012:** *Lancôme* Award for Skin Research
- **2011:** *Nat Cell Biol/Max Dellbruck Award* for Stem Cell Research
- **2007-2011:** *ICREA Junior Researcher*
- **2004-2006:** *Marie Curie Intra-European Postdoctoral Fellowship*
- **2003-2004:** *Long-Term EMBO Postdoctoral Fellowship*
- **2003:** *Cancer Research UK Postdoctoral Prize*, London, UK
- **2001-2002:** *European Association for Cancer Research Young Investigator Awards*
- **2003:** *Award for Best PhD Thesis of the Year*, Spain

Organization of meetings

- **2021:** Co-organizer of the *Skin Epigenetics Symposia*, International Society of Dermatology (ISD)
- **2021:** Chair of the *Epithelial Differentiation Gordon Research Conference* (Europe)
- **2019:** Vice-chair of the *Epithelial Differentiation Gordon Research Conference* (USA)
- **2018:** Co-organizer *Biennial Congress of Metastasis Research Society*, Princeton University (USA)
- **2018:** Organizer of the IRB/BBVA meeting *Mechanisms of Metastasis* (Barcelona)
- **2017:** Organizer of the *Epigenetics in Skin* Symposium (Salzburg)
- **2016:** Organizer of the BCEC *Beyond the Cancer Genomes* meeting (Barcelona)
- **2012-2017:** Co-organizer of Annual European Society for Dermatology Research meetings (ESDR)
- **2014, 2009:** Co-organizer of the *CRG Symposia* on Stem cells and Cancer

- **2012:** Scientific committee of the 22 *EACR* (European Association for Cancer Research)
- **2011:** Co-organizer of the Spanish Association for Cancer Research (*ASEICA*) Congress

Institutional responsibilities activities

- **Since 2014:** International Committee *International Society for Stem Cell Research* (ISSCR)
- **Since 2014:** Scientific advisor for *L'Oreal* (Paris, France)
- **2014-present:** Annual Lectures to the public at the Center for Contemporary Culture of Barcelona (CCCB) AND the City Council of Barcelona on stem cells, cancer, and aging.
- **Since 2013:** Evaluating panel of the *Leo Pharma Award* for Young Investigators
- **2012-2017:** Board member of the *European Society for Dermatological Research* (ESDR)
- **Since 2011:** Lectures at Universitat de Barcelona AND U. Pompeu Fabra for MSc/PhD students
- **2009-2012:** Executive Board member of *ASEICA* (Spanish Association for Cancer Research)
- **2007-2012:** Permanent member of the *Ethical Committee for Animal Research*

Highlighted Publications from a total of 65; senior/last author for 34.

2019: Welz PS, et al, **Benitah SA**. Tissues respond autonomously to light to maintain homeostasis. *Cell*

2019: Koronowski K, Welz PS, et al., **Benitah SA***, Sassone-Corsi P*. Defining the liver autonomous circadian clock. *Cell* (*co-corresponding authors)

2018: Avgustinova A, et al, **Benitah SA**. Loss of heterochromatin modifier preserves mutation patterns but promotes tumour aggressiveness. *Nature Cell Biology* Cover image of issue, and commented in *Nat Cell Biol* and in *Nat Rev Cancer*

2018: Salzer M, et al, **Benitah SA**. Identity noise and adipogenic traits characterize dermal fibroblast aging. *Cell* Commented in *Cell*.

2018: Gawrzak S, et al., **Benitah SA**, Gomis RR. MSK1 regulates luminal cell differentiation and metastatic dormancy in breast cancer. *Nat Cell Biol*

2017: Solanas G, et al, **Benitah SA**. Aged stem cells reprogram their daily rhythmic functions to adapt to tissue-specific stress. *Cell* Commented in *Cell*, *Cell Metabolism*, and *Nat Struct Mol Biol*.

2017: Sato S, et al, **Benitah SA***, Sassone-Corsi P*. Circadian reprogramming identifies metabolic pathways of aging. *Cell* (*co-corresponding) Commented in *Cell*, *Cell Metabolism*, and *Nat Struct Mol Biol*.

2017: Pascual G, et al, **Benitah SA**. Targeting metastasis-initiating cells through the fatty acid receptor CD36. *Nature* (Article) Commented in *Nature*, *Cancer Cell*, *Cell Metabolism*, *Nat Rev Cancer*, *Science*, and more than 500 international media.

2017: Rinaldi L, et al, **Benitah SA**. Loss of Dnmt3a and Dnmt3b does not affect epidermal homeostasis but promotes squamous transformation through PPAR- γ . *eLife* Highlighted in *eLife*.

2016: Rinaldi L, et al, **Benitah SA**. Dnmt3a and Dnmt3b associate with enhancers to regulate human epidermal stem cell homeostasis. *Cell Stem Cell* Highlighted in *Cell Stem Cell*.

2015: Toufighi K, et aal, **Benitah SA***, Serrano L*. Dissecting the calcium-induced differentiation of keratinocytes stem cells by integrative and structural network analyses. *PLoS Comp Biol* (*co-corresponding)

2013: Janich P, et al, **Benitah SA**. Epidermal SC function is regulated by circadian oscillations. *Cell Stem Cell*

2011: Uribealago I, et al, **Benitah SA***, Di Croce L*. E-box-independent regulation of transcription and differentiation by MYC. *Nat Cell Biol* (*co-corresponding)

2011: Luis NM, et al, **Benitah SA**. Regulation of human epidermal SC proliferation and senescence requires polycomb- dependent and -independent functions of Cbx4. *Cell Stem Cell*

2011: Janich P, et al, **Benitah SA**. The circadian molecular clock creates epidermal stem cell heterogeneity. **Nature** (Article) Commented in *Nature*, *Cell Stem Cell*, *Nat Cell Biol*, *Nat Rev Cancer*, and *The Scientist* and more than 100 international media.

Meetings and symposia (selected from over 60 in last 10 years)

- Fusion meeting on epigenetics (2018, 2020)
- Metastasis Research Society (2018, 2020)
- *Nature press* meeting on cancer and metastasis (2019, 2020)
- Chicago epigenetics meeting (2018)
- *Foundation Les Treilles* Stem Cells and Aging meeting (2018, 2019)
- *DKFZ International Behr Symposium* Stem Cells and Cancer (2018)
- *Biomed Metastasis* meeting (2018)
- *Cold Spring Harbor* Stem Cell Conference (2011, 2012, 2017)
- *Keystone* Tumor Metabolism (2017)
- *Keystone* Ageing Metabolism (2016)
- *Keystone* Epigenetics (2014, 2015, 2016, 2018, 2020)
- *Gordon Research Conference* Epithelial Diff. and Keratinization (2013, 2015, 2017)
- *Gordon Research Conference* Ageing (2013)
- *Gordon Research Conference* Chronobiology (2011, 2013, 2017)
- *Gordon Research Conference* Stem Cells (2017, 2019)
- *International Society for Stem Cell Research* ISSCR (2012, 2014, 2016, 2017)
- ISSCR regional and future leader meetings (2013, 2017, 2019)
- *EMBO* Aging (2020)
- *EMBO* Tumor Metabolism (2018)
- *EMBL* Stem cells in Cancer and Regenerative Medicine (2010, 2012)
- *EMBO* Conference on Stem Cells (2010, 2011)
- *Nature Medicine*, Mechanisms of Metastasis (2016) **AND** Regenerative Medicine (2013)
- *Cell* Biology of Time meeting (2018)
- *Cell* Epigenetics meeting (2015)
- *Cell* Chronobiology and aging (2018)
- *EACR* Epigenetics in Cancer meeting (2015, 2020)
- European Association for Cancer Research (*EACR*) (2008, 2018)
- *USA National Academy of Sciences*-Epigenetics and metabolism (2016)
- *European Society for Dermatological Research* ESDR (2012, 2013, 2014, 2015, 2016, 2017)
- *Abcam* Epigenetics Meeting (2014, 2015, 2016, 2017)
- *Miami Silvester Cancer Center* Meeting on epigenetics (2014, 2016)
- *Wellcome Trust Cambridge Stem Cell Institute* (2009, 2012, 2016)
- Universities/Centers: *Oxford University* (2018); *Heidelberg* (2018, 2019); *Princeton* (2018), *Weizmann Institute* (2016); *Harvard Medical School* (2011); *Yale* (2013)

Reviewer and Editorial Boards

- **Journals:** *Nature*, *Science*, *Cell Stem Cell*, *Cell*, *Cell Reports*, *Cell Metabolism*, *Nat Cell Biol*, *Nat Med*, *Nat Gen*, *Elife*, *Journal of Cell Science*, *The EMBO Journal*, *EMBO rep*, *Oncogene*, *PloS Genetics*, *Development*, *Journal Investigative Dermatology*, and *Stem Cell Reports*.
- **Associate Editor:** *Science Advances*, and *Stem Cell Reports*
- **Grants:** France, Belgium, Switzerland, UK (MRC, *Wellcome Trust*, AICR), Italy, EU (ERC).
- **Since 2015:** Editorial Board of *Scientific Reports* (Nature Publishing Group)
- **2009-2015:** Member of the permanent evaluating committee for the *Spanish National Agency for Grant Reviewing* (ANEP)

Clinical trials, and patents and contracts with companies

- **2017-2019:** Scientific Advisor and *Contract with L'Oreal* (France) for the project "Chronobiology: Circadian transcriptome of human keratinocytes from young and aged donors".

- **2016-present:** Patent filing: *Targeting metastatic stem cells through a fatty acid receptor*. Order number: 15382474.3-4303. Applicable countries: Europe, US, Hong Kong.
- **May 2019: Founder of *ONA Therapeutics*** to develop clinical grade antibodies for anti-metastasis therapies. Closed a Series A in July 2020 with an international syndicate for 30 million euros which allows us to reach clinical trials