



Sihem Cheloufi, Ph.D.

University of California Riverside, Biochemistry Department
3401 Watkins Drive, Boyce Hall 4407, Riverside, CA 92521

Email: sihem.cheloufi@ucr.edu • **Phone:** 951 827 3796 • **Web:** cheloufilab.org

CURRENT POSITION

2025 – present	Associate Professor, Department of Biochemistry
2022 – present	Member, Center for RNA Biology and Medicine
2020 – present	Member, Institute for Integrative Genome Biology (IIGB)
2019 – present	Member, Interdisciplinary Center for Quantitative Modeling in Biology
2017 – present	Member, Stem Cell Center
2017 – 2024	Assistant Professor, Department of Biochemistry

EDUCATION

- 2011-2017 Postdoctoral Fellow, Massachusetts General Hospital & Harvard Stem Cell Institute, Boston, MA
Konrad Hochedlinger Lab
- 2004-2010 PH. D in Genetics, SUNY Stony Brook - Cold Spring Harbor laboratory, NY
Greg Hannon Lab
- 2003 Mouse Development, Stem Cells & Cancer Course,
Cold Spring Harbor laboratory, NY
- 2000-2001 B. S Thesis, Institute of Child Health, University College London, UK
Sue Malcolm Lab
- 1998-2001 B. S in Molecular Genetics, King's College University of London, UK
- 1997-1998 English Diploma, King's College University of London, UK
- 1994-1997 Baccalaureate, Lycée Polyvalent, Tlemcen, Algeria

GRANT SUPPORT

Active:

2023-2028 NIH, National Institute of General Medical Sciences (R35 MIRA)
Role: PI
Title: Investigating the Regulatory Roles of Histone Chaperones in Cellular Plasticity

Trainees Support

2025-2028 CIRM RAMP Undergraduate Fellowship (Shivani Ramesh)
2025-2026 UCR NSF CAMP Undergraduate Fellowship (Logan Reynosa)
2024-2026 CIRM TRANSCEND Predoctoral Fellowship (Meijuan Chen)
2023-2026 CIRM TRANSCEND Postdoctoral Fellowship (Reuben Franklin)
2026 RISE Summer Fellowship (Ohm Mishra & Jacob Alvarado)

Completed Projects

As Faculty

- 2023-2025 CITY OF HOPE – UCR Biomedical Research Initiative
Role: CO-PI (Cheloufi / Schones)
Title: Epigenetic Regulation and Manipulation of Endogenous Retroviral Elements during Cellular Differentiation
- 2021-2025 NSF, Division of Molecular and Cellular Biosciences
Role: CO-PI (Murn/Cheloufi)
Title: Tissue-Specific Regulation of RNA-based Enzymes by their Protein Subunits
- 2020-2025 NIH, National Institute of Environmental Health Sciences
Role: Co-I with Chen/Zhou CO-PIs
Title: Decoding the Signature of Sperm RNA & RNA Modification of Environmental Stressors on the Intergenerational Transmission of Metabolic Phenotypes
- 2022-2023 UC Cancer Research Coordinating Committee Faculty Seed Grant & Diversity and Disparities in Cancer Research Undergraduates Traineeship Supplements
Role: PI
Title: Investigating the Role of Transposable Elements During Cell Fate Commitment
- 2020-2021 UC Cancer Research Coordinating Committee
Role: PI
Title: Control of cell fate commitment by the histone chaperone CAF-1
- 2019-2020 CITY OF HOPE – UCR Biomedical Research Initiative
Role: CO-PIs (Cheloufi/Chen)
Title: CRISPR-CAS9 domain scanning for histone chaperone epigenetic vulnerabilities in Acute Myeloid Leukemia and beyond
- 2019-2020 Regents Faculty Fellowship, UC Riverside Academic Senate
Role: PI
Title: Investigating the Mechanisms of Skeletal Regeneration
- 2018-2019 Integrative Genomics Pilot Grant, 10X Genomics
Role: CO-PI (Cheloufi/Rockne)
Title: Investigating Leukemic Stem Cell Maturation Fate at the Single Cell Level

As Trainee

- 2015-2016 Harvard Medical School collaborative Epigenetics Seed grant
Role: CO-PI (Cheloufi/Deaton)
Hochedlinger lab - Kingston lab
Title: Analysis of histone variant dynamics upon facilitated reprogramming by CAF-1 suppression
- 2016-2017 ECOR Postdoctoral fellowship
Massachusetts General Hospital Tosteson & Fund for Medical Discovery
Title: Investigating the role of the histone chaperone CAF-1 in hematopoiesis and leukemia
- 2013-2016 Visionary Postdoctoral fellowship, Department of Defense Peer-Reviewed Cancer Research Program (PRCRP)
Title: Investigating Epigenetic Parallels between Carcinogenesis and Reprogramming to Pluripotency

2000-2001	Undergraduate internship, Institute of Child Health, University College London, UK Title: Parametric Linkage Analysis of Candidate Regions in Cleft Lip and Palate families
1998-1999	Undergraduate internship, The Randall institute, Kings College University of London, UK Gene silencing of HIV chemokine receptors using ribozymes
1997-2001	Undergraduate Scholarship to study in the UK, Algerian Ministry of Education and Scientific Research

SELECTED PUBLICATIONS (* Corresponding Authors, # Trainees)

- Chen, M. #, Zhang, B. #, Wu, K., Trostnikov, M., Liu, S., Franklin, R. #, He, S., Murn, J., Ninova, M. *, and **Cheloufi, S. *** (2026). Retroelement-Encoded mRNAs Facilitate Somatic Stem Cell Differentiation. **Under Revision**.
- Liu, Y., He, S., Pyo, K., Franklin R#, Maaz, I., Cai, C., Sha, K., **Cheloufi S***, Marzluff, B. *, and Murn, J. * (2025). Reversible proliferative arrest induced by rapid depletion of RNase MRP. 2025 **Nature Communications**, 2025; 16, 5342. [PMID: 40533478](#)
- Franklin, R. #, Zhang, B. #, Frazier, J. #, Chen, M. #, Do, B.T., Padayao, S. #, Wu, K., Vander Heiden, M.G., Vakoc, C.R., Roe, J.S., Ninova, M., Murn, J., Sykes, D.B., and **Cheloufi, S***. Histone Chaperones Control Divergent Chromatin Elements to Maintain Cell Fate. 2025 **Genes & Development** 39, 652-675. [PMID: 40240143](#)
- He S, Valkov E, **Cheloufi S*** & Murn J. * The nexus between RNA-binding proteins and their effectors. **Nature Reviews Genetics**, 2023 May;24(5):276-294. [PMID: 36418462](#)
- Franklin R#, Guo Y#, He S, Chen M#, Ji F, Zhou X, Frankhouser D, Do BT, Chiem C#, Jang M#, Blanco MA, Vander Heiden MG, Rockne RC, Ninova M, Sykes DB, Hochedlinger K, Lu R, Sadreyev RI, Murn J *, Volk A *, **Cheloufi S***. Regulation of chromatin accessibility by the histone chaperone CAF-1 sustains lineage fidelity. **Nature Communications**. 2022 Apr 29;13(1):2350. [PMID: 35487911](#)
- Shi J, Zhang Y, Tan D, Zhang X#, Yan M, Zhang Y, Franklin R#, Shahbazi M, Mackinlay K, Liu S, Kuhle B,..., Schimmel P, Zernicka-Goetz M, **Cheloufi S***, Zhang Y*, Zhou T*, Chen Q. * PANDORA-seq expands the repertoire of regulatory small RNAs by overcoming RNA modifications. **Nature Cell Biology**. 2021 Apr;23(4):424-436. [PMID: 35487911](#)
- Franklin R#, Murn J *, **Cheloufi S. *** Cell Fate Decisions in the Wake of Histone H3 Deposition. **Frontiers in Cell Developmental Biology** 2021;9:654915. [PMID: 35487911](#)

See complete list of published work under **PUBLICATIONS** and on my [Pubmed Bibliography](#)

PATENTS

As Faculty

- 2025 – present Methods of Inducing Cellular Quiescence, **UCR**, Jernej Murn and Sihem Cheloufi. Patent Application Filed Sept 12th 2025.

As Trainee

- 2018-present Methods for controlling cell fate and consequences for disease, Patent # 10,059,945, **Massachusetts General Hospital**, Konrad Hochedlinger and Sihem Cheloufi. Filed on Feb 27th 2017 and issued on August 28th 2018.

- 2015-present Novel Structurally Designed shRNAs, Patent # 8,993,532, **Cold Spring Harbor Laboratory**, Gregory J. Hannon, Huntington, N.Y. (US); and Sihem Cheloufi, Boston, Mass. (US) Filed on April 22nd 2011 and issued on March 31st 2015.

AWARDS & HONORS

As Faculty

2024	LSEF Justice, Equity, Diversity and Inclusion (JEDI) Award
2023	NIGMS Maximizing Investigator's Research Award (MIRA)
2019 & 2023	City of Hope – UC Riverside Biomedical Research Initiative Award
2023	UCR Nomination for the Pew Scholars Program in the Biomedical Sciences
2020 & 2022	Cancer Research Coordinating Committee Award, University of California
2019	Regents Junior Faculty Fellowship, UC Riverside Academic Senate
2019	UCR Nomination for the Johnson & Johnson WiSTEM2D Scholars Award
2019	Women Faculty Association travel award, University of California Riverside
2018-2025	Omnibus Travel Awards, UC Riverside Academic Senate
2018	Integrative Genomics Core Pilot Award

As Trainee:

2015	Harvard Medical School Epigenetics Seed Grant Award
2016	DoD Peer-Reviewed Cancer Research Program visionary postdoctoral fellowship Award
2015	Future of Science Fund Scholarship, Keystone Symposia
2007	Society for Developmental Biology Travel Award
2003	Excellence in Research Award, Sigma Xi society
2003	Sigma Xi society Travel Award
2001	Young Science Writer Awards, Daily Telegraph
1997	Algerian Ministry of Education and Scientific Research Award

SELECTED PRESENTATIONS

As Faculty

July 2026	Cancer Research UK Prof. Greg Hannon Memorial Symposium
May 2026	UCSF, The Basic Seminar: A Celebration of Audacious Science Seminar Series
Feb 2026	UCI, Biological Chemistry Department Seminar Series
Jan 2026	16 th Annual ALS Network Research Summit, Pasadena Convention Center
Nov 2025	Endogenous Retrotransposable Elements & Human Diseases Conference
May 2025	Biomedical Science and Engineering Seminar Series, MGH-Harvard Medical School & Center of Engineering in Medicine and Surgery
May 2025	The 14th Annual Southern California Systems Biology Symposium
April 2025	LSU Health Shreveport Molecular & Cellular Physiology Seminar Series

March 2025	NSF ERC ATP-Bio Annual Conference
Nov 2024	Inland Empire Stem Cell Symposium
Oct 2024	Cold Spring Harbor Laboratory Transposable Elements Conference, NY
Oct 2024	Second New Investigator in Chromatin and Epigenetics (NICE) conference
May 2024	UCR Center for RNA Biology and Medicine Mini Retreat
Jan 2024	UCI School of Medicine, Department of Microbiology and Molecular Genetics
Dec 2023	UCR 21st Annual CEPCEB Awards & Lecture Ceremony
Oct 2023	Inaugural New Investigator in Chromatin and Epigenetics (NICE) conference
Aug 2023	Epigenetics Gordon Research Conference
June 2023	87th Cold Spring Harbor Laboratory Symposium on Quantitative Biology: Stem Cells
April 2023	Bay Area Chromatin Club Seminar Series, Special Guest
April 2023	NIDDK LCDB Seminar series, Bethesda, MD
April 2023	NCI Special Seminar, Frederick, MD
Sept 2022	Cold Spring Harbor Laboratory Epigenetics and Chromatin Conference, NY
June 2022	DEEP Laboratory of Excellence, Institut Curie, Paris
Jan 2022	Subhash Mukhopadhyay symposium, Adamas University, India
Jan 2022	Ribo Forum Seminar Series, University of California Los Angeles
Nov 2021	Chromatin Club Seminar Series, University of Michigan, Ann Arbor, MI
Sept 2021	EMBO Workshop: Physiology and Function of Histone Variants
June 2021	Society for Mathematical Biology Annual Conference, UC Riverside
May 2021	Mayo Clinic Epigenomics Seminar Series, Rochester, MN
Oct 2019	Inland Empire Stem Cell Consortium, University of California Riverside
June 2019	International Society for Stem Cell Research Annual Conference, Los Angeles

As Trainee

October 2015	Harvard Medical School Epigenetics Symposium
May 2015	Abcam Epigenetics Meeting on Bridging Development and Disease & Non-coding RNAs, Harvard Medical school
March 2015	Keystone Conference on Transcriptional and Epigenetic influences on stem cell states, Steamboat Springs, Colorado
August 2010	New England RNA data club, Harvard Medical School, Boston
Jan 2010	Keystone Symposia: "RNA Silencing: Mechanism, Biology and Application"

Feb 2010 microRNAs in Human Disease Conference, St. Kitts and Nevis

June 2007 3rd International Meeting of LASDB (joint with SDB and others) in Cancún

TRAINEES, MENTORSHIP & ACCOMPLISHMENTS

As Faculty (*Current trainees in green*)

Project Scientists

- 2024-2025 **Si Liu**
2026: Co-author on ERV manuscript under revision, [Chen & Zhang et al, 2026](#)
2025: **Group leader**, National Key Laboratory of Agricultural Microbiology, Huazhong Agricultural University
2024-2025: Assistant Specialist, Co-mentored with Prof. Shou-wei Ding

Postdoctoral Fellows

- 2023-present **Reuben Franklin**
2026: 16th Annual ALS Network Research Summit
2025: CIRM Trainee Networking Conference
2025: Co-first authors on histone chaperones screen paper, [Franklin & Zhang et al, 2025](#)
2024: UCI Center for Epigenetics and Metabolism Annual Symposium (*selected talk*)
2024: ASBMB Transcriptional regulation by chromatin and RNA polymerase (*selected talk*)
2024: CIRM SPARK Conference Poster Presentation
2024: Fragile Nucleosome Webinar
2023: Bay Area Chromatin Club Symposium Poster Presentation
2023-2026: CIRM TRANSCEND Postdoctoral Traineeship, Stem Cell Center Training Grant

Graduate Students

- 2022-present **Brian Zhang**, Cell, Molecular and Developmental Biology Program
2026: Co-first author on ERV submitted manuscript, [Chen & Zhang et al, 2026](#)
2025: ERV Fusion Conference **Poster Award**
2025: Endogenous Retrotransposable Elements & Human Diseases Fusion Conference Award
2025: Co-first author on the histone chaperones screen paper, [Franklin & Zhang et al, 2025](#)
2024: UCR CNAS Dexiang Dong and Yiyun Cao Graduate Scholarship in Human Virology
2023: Bay Area Chromatin Club Symposium Poster Presentation
- 2022-present **Meijuan Chen**, Cell, Molecular and Developmental Biology Program
2026: Projected Graduation from CMDDB Graduate Program, **Fall 2026**
2026: Co-first author on ERV submitted manuscript, [Chen & Zhang et al, 2026](#)
2025: Inland Empire Stem Cell Symposium **Best Oral presentation Award** (*selected talk*)
2024: CIRM SPARK Conference Poster Presentation
2023: RNA society membership award sponsored by UCR's RNA center
2022: UCR RNA Center Inaugural Symposium Poster Presentation
2023-2026: CIRM TRANSCEND Predoctoral Traineeship, Stem Cell Center Training Grant
- 2018-2023 **Reuben Franklin**, Cell, Molecular and Developmental Biology Program
2023: TRANSCEND postdoctoral CIRM Scholarship
2023: Ph. D. University of California Riverside
2023: UCR CNAS Dean's Fellowship

- 2022: First author on the first research article from the Cheloufi Lab, *Franklin et al, 2022*
 2022: **Best oral presentation award** at UCR's Institute for Integrative Genome Biology Annual Symposium
 2021: Nominated to apply for the HHMI Gilliam Fellowship for Advanced Studies
 2021: First author on a review article from the Cheloufi Lab, *Franklin et al, 2021*
 2021: Co-first author on a collaborative paper with Dr. Qi Chen's group at UCR
 2019: **2nd prize poster presentation award** at the 8th Inland Empire Stem Cell Consortium
 2019: Americans for Cures Foundation Travel Award
 2019-present: Member, International Society for Stem Cell Research (ISSCR)
 2019: Science Community Outreach at local elementary schools
 2018: Eugene Cota Robles Fellowship
 2018: UCR Summer GradEdge/JumpStart Program
- 2018-2020 **Yiming Guo Livelo**, Biochemistry and Molecular Biology Program
 2024-present: **Translational Medicine Scientist**, Burning Rock Dx
 2023: Ph.D. University of Alabama Birmingham
 2021: Transferred PhD to University of Alabama Birmingham
 2020: Second author on the first research article from the Cheloufi Lab, *Franklin et al, 2022*
 2019: Presenter at the UCR Stem Cell Center Seminar Series
 2019: Americans for Cures Foundation Travel Award
 2019-2020: PhD Student, Biochemistry and Molecular Biology Program, UCR
 - 2018-2019 **Sally Padayo**, Biochemistry and Molecular Biology Program
 2024: Co-author on the histone chaperones screen paper, *Franklin et al 2025*
 2023-present: **Research Scientist I**, Stealth Mode Biotech
 2018-2019: Rotation student

Junior Specialists

- 2023-2024 **Camille Groneck**, BS University of Washington, Christine Disteche lab trainee
 2025-present: **PhD Student**, CMDDB program, UCR (Martin Riccomagno lab)
 2024: NSF INNOVAR course
- 2021-2022 **Meijuan Chen**, Shou-wei Ding lab trainee
 2022-present: **PhD student**, CMDDB program, UCR (Cheloufi lab)
 2022: co-author on the first research article from the Cheloufi Lab, *Franklin et al, 2022*
 2022-present: Member, RNA Society
- 2021-2021 **Ho Jung Jeong**, BS UC Berkeley
- 2018-2019 **Jose Luis Orozco**, BS UCLA, Peter Tontonoz trainee
 2024: **MD student**, UC Davis School of Medicine
- 2018 **Sandy Hanna**, BS UCR graduate with Honors
 2023-present: **Resident Physician**, March Air Reserve Base, California

Undergraduate Trainees

- 2026-present **Ohm Mishra**, CMDDB Major, UCR
 2026-present: Scholars Transforming Through Research: Council on Undergraduate Research's Advocacy Program
- 2025-present **Shivani Ramesh**, Neuroscience Major, UCR
 2025-2028: CIRM RAMP program undergraduate fellowship
 Summer 2025: CIRM RAMP summer program internship

- 2025-present **Logan Reynosa**, CMDDB Major, UCR
2026: NSF CAMP UC Systemwide Conference, Beckman Center
2025-present: NSF CAMP Undergraduate Fellowship
2025-present: Scholars Transforming Through Research: Council on Undergraduate Research's Advocacy Program
Summer 2025: Research in Science & Engineering (RISE) scholar
- 2026 **Jacob Alvarado**, Research in Science & Engineering (RISE) scholar
2026: Biochemistry Major at UCSD
- 2025 **Eric Bedolla**, Biochemistry Major, Riverside Community College
Summer 2025: Research in Science & Engineering (RISE) scholar award
- 2023-2025 **Jonah Frazier**, Biochemistry Major, UCR
2025: **PhD Student**, UCSF Pharmaceutical Sciences and Pharmacogenomics
2025: IMSD Fellowship Program, UCSF
2024: Co-author on the histone chaperones screen paper, *Franklin et al 2025*
2024-2025: McNair Undergraduate Research Program
Spring 2024: National Conference for Undergraduate Research Poster presentation
2023-2024: UCOP CRCC Diversity and Disparities in Cancer Research Traineeship
Summer 2023: Research in Science & Engineering (RISE) scholar
- 2021-2023 **Shreyans (Archie) Patel**, UCR Biology major
2024: **MD student**, UCR School of Medicine
2022: UCOP Diversity and Disparities in Cancer Research Traineeship Supplement
2021: Dean's and Chancellor's Honor list
- Summer 2022 **Brian Zhang**, CMDDB major (NSF PERSIST & Chancellor's Honor list)
2022-present: **PhD Student**, CMDDB program, UCR (Cheloufi lab)
- Summer 2021 **Arushee Sangani**, Biochemistry Major, UCR
City of Hope Eugene and Ruth Roberts summer internship Co-mentored student
- 2018-2019 **Sarah Miller**, CMDDB major (SALSA-HHMI summer fellowship)
2022-present: **PhD Student**, UNC Toxicology & Environmental Medicine Program
- Summer 2019 **MiHyun (Amy) Jang**, Biomedical Engineering, Columbia University
City of Hope co-mentored summer student (Rockne lab)
- 2017-2018 **Carmen Chiem**, Biochemistry Major, UCR
2022: co-author on the first research article from the Cheloufi Lab, *Franklin et al, 2022*
- 2017 **Jiahui Ni**, Pharmaceutical Science Major, Fudan University
exchange student from Fudan University

As Trainee

Graduate Trainees

- 2012-2013 **Daniel Wesche**, M.Sc. in Molecular Mechanisms of Disease, Nijmegen Center for Molecular Life Sciences, Radboud University, The Netherlands
2013: Master's thesis under my supervision: *The role of lncRNAs in cellular reprogramming*
2012: Molecular Mechanisms of Disease (MMD) Scholarships,
2015: Co-author of Nature publication on CAF-1 in cellular reprogramming, *Cheloufi et al, 2015*
- 2012-2013 **Nade Abazova**, M.Sc. in Molecular Biosciences, University of Heidelberg

2013: Master's thesis under my supervision: *The role of histone modifications in reprogramming*
 2015: Co-author of Nature publication on CAF-1 in cellular reprogramming, [Cheloufi et al, 2015](#)

- 2010 **Xin Zhou**, Ph.D. SUNY Stony Brook University
 Graduate Student trainee, Hannon Lab, Project: improved design of shRNA based on structural mimics of miR-451

Undergraduate Trainees

- 2014-2015 **Max Hogue**, Postbac trainee, Hochedlinger lab,
 2015: Co-author of Publication, [Cheloufi et al, 2015](#)
- 2008 **Chris Hsiung**, CSHL undergraduate research program, Hannon laboratory
 Differential small RNA loading in mammalian AGO complexes
 2024-present: **Assistant Professor**, UCSF Institute for Human Genetics and Dept. of Surgery.

TEACHING

Courses

Winter 2025	BCH230 Advanced Topics in Biochemistry: Mobile DNA and Cellular Plasticity
Winter 2024-present	BCH180R Epigenetics Approaches and Technologies
Fall 2022-present	BCH 185 Epigenetics in Development and Disease
Spring 2018-present	BCH 211 Molecular Biology Graduate Course
Fall 2018-present	BCH 110C General Biochemistry Upper Division Course
Spring 2024	BCH251/252 Seminar Series in Biochemistry
Winter 2024-2025	IIGB Seminar Series
Fall 2017-present	BCH 197 Research for Undergraduate Students
Fall 2017-present	BCH 240 Special topics in Biochemistry: Stem Cell Biology
Fall 2018-present	CMDB 250 Special topic in Cell, Molecular, and Developmental Biology

Guest lectures

Fall 2025	Neuroscience Seminar Series
Fall 2024	Neuroscience Seminar Series
Fall 2023	BCH 252 Biochemistry Seminar Series
Spring 2022	Environmental Toxicology Seminar Series
Winter 2022	BCH 252 Biochemistry Seminar Series
Fall 2018	BCH 095 Topics in Biochemistry for Career Planning

Graduate Thesis Committee

- 2025-present BCMB Program, Sol Yoon (**Song Lab**)
- 2024-present CMDB Program, Loic Ciamposin (**Le Roch lab**)
- 2024-present CMDB Program, Sarah Schroeder (**Martinez Lab**)
- 2025-present BCMB Program, Brendan Boyd (**Ninova Lab**)
- 2025-present BCMB Program, Kelly Britton (**Ninova Lab**)
- 2024-present BCMB Program, Genevieve Herle (**Song lab**)
- 2023-present BCMB Program, Kun Wu (**Ninova Lab**)
- 2023-present Biochemistry and Molecular Biology (BCMB) Program, Timothy Tam (**Blaha Lab**)
- 2023-present Mathematics Graduate Program, Kevin Su (**Heyrim Cho lab**)
- 2023-present BCMB Program, Breanna Jones (**Karginov Lab**)

- 2022-present Biochemistry and Molecular Biology (BCMB) Program, Yuxin He (**Nair Lab**)
- 2023-present BCMB Program, Kevin Menjivar (**Hille Lab**)
- 2022-present GGB Program, Todd Lenz (**Le Roch lab**)
- 2018-2023 Biochemistry and Molecular Biology (BCMB) Program, Qi Zhou (**Liu Lab**)
- 2018-2023 BCMB Program, Kriti Shah (**Murn Lab**)
- 2018-2022 BCMB Program, Jennifer Jossart (**Perry Lab**)
- 2019-2022 Environmental Toxicology Program, Madeline Vera-Colon (**Zur Nieden Lab**)
- 2019-2021 BCMB Program, Hiwot Anteneh (**Song Lab**)
- 2018-2021 Bioengineering Program, Taylor Hanley (**Anvari Lab**)
- 2018-2019 Cell Molecular and Dev Biology Program, Desiree Williams (**Le Roch lab**)
- 2017-2019 BCMB Program, Omran Karmach (**Zur Nieden Lab**)

PROFESSIONAL ACTIVITIES & SERVICES

Positions

- 2024-present **Co-founder**, [StopTime Inc.](#), biotechnology startup focused on pausing life to preserve it
- 2025-2029 Member, UCOP Cancer Research Steering Committee
- 2024-2028 Member, UCOP Cancer Research Coordinating Committee (CRCC)

Ad Hoc Journal Reviewer

PNAS, Nature Communications, Molecular Cell, Genome Research, Cell Reports, Developmental Cell, Epigenetics and Chromatin, Molecular Systems Biology, Gene Therapy, Science Advances, Development, Frontiers in Genetics, Frontiers in Cell and Developmental Biology, Gene Therapy, Reprogramming.

Ad Hoc Grant Reviewer

- 2026 UCOP Cancer Research Coordinating Committee Review Panel
- 2026 NIH Fellowship Review Panel on Cell Biology, Developmental Biology, and Bioengineering [F05]
- 2026 Wellcome Trust Discovery Award, Genetics and Molecular Sciences, external reviewer
- 2025 UCOP Cancer Research Coordinating Committee Review Panel
- 2025 NSF reviewer, Division of Molecular and Cellular Biosciences
- 2024 NIH Fellowship Review Panel on Cell Biology, Developmental Biology, and Bioengineering [F05]
- 2024 Natural Sciences and Engineering Research Council of Canada, external reviewer
- 2023 NIH Center for Scientific Review, MIRA R35, MRAC study section
- 2023 European Research Council (ERC), external reviewer
- 2022 NIH Center for Scientific Review, Early Career Reviewer, MG study section
- 2022 Swiss National Science Foundation, Division Biology and Medicine, external reviewer
- 2017-present UCR Biochemistry Department Wedding Prize Award

Publishing

Review Editor, Frontiers in Genetics (RNA section)

Conferences, Workshops, Training & Mentorship Programs

- Spring 2026 **Student, CIMER Faculty Mentoring Workshop**

- 2021-present **Founder & Organizer**, UCR Junior Faculty Peer Mentorship Slack Group
- 2025 **Session Chair**, RNA Society Annual Conference
- 2025-present **Member**, UCR Advancement and Retention in Academe Mentorship Program
- 2025- present **Mentor**, ARA, Xiaoqian Liu, Assistant Professor, Department of Statistics
- Spring 2025 **Panelist**, Environmental Toxicology T32 Training Grant Mentorship Workshop
- 2024 **Panelist**, 2nd Annual Greater LA Regenerative Medicine Summit focused on workforce development, translational research, community engagement and sustainability
- 2024 **Participant**, Innovar NSF Entrepreneurial Course, UCR
- 2021- 2026 **Participant**, California Institute for Regenerative Medicine (CIRM) Training Program to Advance Interdisciplinary Stem Cell Research, Education, and Workforce Diversity
- Winter 2023 **Panelist**, Advancement and Retention in Academe Mentoring workshop
- Fall 2022 **Session Chair**, Inaugural Symposium of UCR Center for RNA Biology and Medicine
- 2019-present **Abstract Reviewer**, International Society for Stem Cell Research (ISSCR) Annual Conference
- 2017-present **Host** for UCR seminar series (Biochemistry and Molecular Biology, Stem Cell Center & Institute for Integrative Genome Biology)
- Fall 2021 **Panelist**, CMDB & Biomedical Sciences Graduate programs Review
- Spring 2018 **Participant**, DoD Regenerative Medicine Stakeholder's Meeting
- Fall 2018 **Panelist**, UCR School of Medicine Post-Graduate Professional Development

Professional Memberships

- 2025-2029 UC Cancer Research Coordinating Committee
- 2022-present Member, the American Society for Biochemistry and Molecular Biology
- 2021-present Member, the RNA society
- 2011-present Member, International Society for Stem Cell Research (ISSCR)
- 2005-2011 Member, Society for Developmental Biology

Academic Committees

- 2017-present Biochemistry Wedding Award and Symposium Committee
- 2024-2025 IIGB Seminar Series Organizing Committee
- 2023-2025 Undergraduate Research Faculty Advisory Board
- 2021-2025 Biochemistry Department, Diversity, Equity and Inclusion Committee
- 2022-2023 Biochemistry Department Teaching Committee
- 2017-2024 Biochemistry Department Graduate Program Admission Committee
- 2017-present Early Childhood Education Parent Advisory Committee
- 2022-2023 Assistant professor of Teaching Faculty Search Committee
- 2018-2022 Environmental Toxicology Graduate Program Admission Committee
- 2019-2020 Epigenetics Faculty Search Committee
- 2017-2018 Cryoelectron Microscopy Faculty Search Committee
- 2017-2018 Biomedical Sciences Graduate Program Admission Committee
- 2017- present Advisory and Qualifying Exam Committees of various graduate programs (Biochemistry and Molecular Biology, Cell Molecular and Dev Biology, ETOX, Neuroscience, Bioengineering, Genetics, Genomics and Bioinformatics)

ALL PUBLICATIONS (* Corresponding authors; # Trainees)

As Faculty

- Chen, M. #, Zhang, B. #, Wu, K., Trostnikov, M., Liu, S., Franklin, R. #, He, S., Murn, J., Ninova, M. *, and Cheloufi, S. * (2026). Retroelement-Encoded mRNAs Facilitate Somatic Stem Cell Differentiation. **Under Revision**.

This is a new research direction in my lab examining the regulation and impact of endogenous retroviruses on somatic stem cells. We are excited about this work, which opens up several promising avenues to investigate novel mechanisms of TE-mediated gene regulation and envelope protein biology, from both physiological and technology-development perspectives.

- Knudsen, T.E., Reverón-Gómez, N., Biran, A., Alcaraz, N., **Cheloufi, S.**, Hochedlinger, Brickman, J.M., Groth, A., Stewart-Morgan K. R. Post-replicative chromatin accessibility predicts cell fate change. 2026 **Stem Cell Reports**, 102821.

This is a long-standing collaborative project that I initiated with the Groth Lab when I was a postdoc at MGH, I had worked closely with Kathleen Stewart-Morgan, then also a postdoc in the Groth lab, to optimize Repli-ATAC-seq in iPSC reprogramming. The project has since grown to include ESC to Epiblast Cell differentiation with the Brickman Group, which reinforced the work. I continued to work closely with Kathleen in my lab to interpret data and write the manuscript, as well as offer mentorship to Kathleen as transitioned to set up her own group.

- Park, S.H., Pan, J., Zhang, X., Lin, T.-A., Tang, S., Li, X., **Cheloufi, S.**, Chen, Q., Zhou, T., and Zhou, C. Paternal Microplastic Exposure Alters Sperm Small Noncoding RNAs and Affects Offspring Metabolic Health in Mice. 2026 **Journal of the Endocrine Society** 10, bvaf214.

This is a long-standing collaboration that initially began with Qi Chen's group (see NIEHS R01, where I am a co-investigator with Chen and Zhou). I have continued to work with Qi after his move to Utah, and this project was further developed at UCR with Dr. Zhou's group, focusing on the transgenerational inheritance of small RNAs and its links to metabolic disorders. My lab has contributed our expertise in stem cell biology and small RNA biology throughout.

- Liu, Y., He, S., Pyo, P., Zheng, S., Chen, M.#, **Sihem Cheloufi**, Slavov, N., Marzluff, W.F., Murn, J. Composition and RNA binding specificity of metazoan RNase MRP. 2025 **Nucleic Acids Research** 53(16)

This is a collaborative effort with the Murn lab where we provide a new insights on the composition and function of the RNase MRP complex. My lab contributed with key reagents, protocols, cell biology experiments and provided guidance with data analysis and interpretation. Co-author trainees include M. Chen.

- Liu, Y., He, S., Pyo, K., Franklin R#, Maaz, I., Cai, C., Sha, K., **Cheloufi S***, Marzluff, B. *, and Murn, J. * (2025). Reversible proliferative arrest induced by rapid depletion of RNase MRP. 2025 **Nature Communications**, 16, 5342.

This is a collaborative effort with the Murn lab revealing a new link between ribosomal RNA biogenesis and induction of cellular quiescence in mammalian cells. My lab contributed with key reagents, protocols, cell biology experiments and provided guidance with data analysis and interpretation. Co-author trainees include R. Franklin.

- Franklin, R. #, Zhang, B. #, Frazier, J. #, Chen, M. #, Do, B.T., Padayao, S. #, Wu, K., Vander Heiden, M.G., Vakoc, C.R., Roe, J.S., Ninova, M., Murn, J., Sykes, D.B., and Cheloufi, S*. Histone Chaperones Control Divergent Chromatin Elements to Maintain Cell Fate. 2025 **Genes and Development** 39, 652-675.

This is a new story from my lab on a histone chaperone focused screen in Hematopoietic stem and progenitor cells that revealed link to both replication and transcription coupled histone chaperones. In this research article Sihem Cheloufi Conceived and designed the study. She performed and analyzed the experiments. She Supervised and coordinated all the collaborations. Interpreted the data and wrote the manuscript with input from all authors. Co-author trainees include postdoctoral fellow R. Franklin, graduate students: M. Chen, B. Zhang, S. Padayo and an undergraduate student Jonah Frazier.

UCR press release: <https://news.ucr.edu/articles/2025/04/16/dna-organization-offers-clues-advancing-stem-cell-therapy>

- Shah, K., He, S., Turner, D.J., Corbo, J., Rebbani, K., Dominguez, D., Bateman, J.M., **Cheloufi S**, Igreja, C., Valkov, E., and Murn, J. (2024). Regulation by the RNA-binding protein Unkempt at its effector interface. **Nature Communications** 15, 3159.

This is a collaborative effort with the Murn lab where we provide mechanistic insights on The RBP-Effector communication by investigating the function of a neuronal RBP in regulating protein translation and cell morphology. My lab contributed with key reagents, protocols and provided guidance.

- He S, Valkov E, **Cheloufi S*** & Murn J*. The nexus between RNA-binding proteins and their effectors. **Nature Reviews Genetics**, doi:10.1038/s41576-022-00550-0 (2022)

This is a collaborative invited review article with the Murn lab at UCR on RNA related projects in the lab. The review is centered on the communication between RNA binding proteins and their effectors, how they converge to regulate biological processes and their significance in disease.

- Do, B.T., Hsu, P.P., Vermeulen, S.Y., Wang, Z., Hirz, T., Abbott, K.L., Aziz, N., Replogle, J.M., Bjelosevic, S., Paolino, J., Nelson, S.A., Block, S., Darnell, A.M., Ferreira, R., Zhang, H., Milosevic, J., Schmidt, D.R., Chidley, C., Harris, I.S., Weissman, J.S., Pikman, Y., Stegmaier, K., **Cheloufi S**, Su, X.A., Sykes, D.B., and Vander Heiden, M.G. (2024). Nucleotide depletion promotes cell fate transitions by inducing DNA replication stress. **Developmental Cell** 59, 2203-2221 e2215.

This is a collaborative project with the Vander Heiden lab at MIT. Sihem Cheloufi performed ATAC-seq and RNA-seq experiments, contributed intellectually to the study and assisted in data interpretation and editing the manuscript.

- Franklin, R. #, Guo, Y. #, He, S., Chen, M. #, Ji, F., Zhou, X., Frankhouser, D., Do, B. T., Chiem, C. #, Jang, M. #, Blanco, M. A., Vander Heiden, M. G., Rockne, R. C., Ninova, M., Sykes, D. B., Hochedlinger, K., Lu, R., Sadreyev, R. I., Murn, J. *, Volk, A. * & **Cheloufi, S***. Regulation of chromatin accessibility by the histone chaperone CAF-1 sustains lineage fidelity. **Nature Communications** 13, 2350, doi:10.1038/s41467-022-29730-6 (2022).

This is the first story from my lab on the role of CAF-1 in hematopoietic stem and progenitor cells. In this research article Sihem Cheloufi Conceived and designed the study. She performed and analyzed the experiments. She Supervised and coordinated all the collaborations. Interpreted the

data and wrote the manuscript with input from all authors. Co-author trainees include graduate students: R. Franklin, Y. Guo and M. Chen; and undergraduate students C. Chiem and M. Jang.

UCR press release: <https://news.ucr.edu/articles/2022/04/29/how-genome-organization-influences-cell-fate>

- Shi, J., Zhang, Y., Tan, D., Zhang, X. #, Yan, M., Zhang, Y., Franklin, R. #, Shahbazi, M., Mackinlay, K., Liu, S., Kuhle, B., James, E. R., Zhang, L., Qu, Y., Zhai, Q., Zhao, W., Zhao, L., Zhou, C., Gu, W., Murn, J., Guo, J., Carrell, D. T., Wang, Y., Chen, X., Cairns, B. R., Yang, X. L., Schimmel, P., Zernicka-Goetz, M., **Cheloufi, S.** *, Zhang, Y. *, Zhou, T. * & Chen, Q. * PANDORA-seq expands the repertoire of regulatory small RNAs by overcoming RNA modifications. **Nature Cell Biology** 23, 424-436, doi:10.1038/s41556-021-00652-7 (2021).

This is a collaborative project between the Cheloufi Lab and Dr. Qi Chen's lab at UCR's Biomedical Division. Here Sihem Cheloufi Conceived the project on the role of small RNAs in cell fate decisions in collaboration with Dr. Qi Chen's group using PANDORA-seq technology. She Designed and supervised all the stem cell work in both labs where she trained her graduate student Reuben Franklin et co-mentored Xudong Zhang from the Qi lab. Sihem Cheloufi Analyzed and interpreted the data and contributed to writing the manuscript. Reuben Franklin is co-first author.

UCR press release: <https://news.ucr.edu/articles/2021/04/05/new-method-expands-world-small-rnas>

- Franklin, R. #, Murn, J. * & **Cheloufi, S.** *. Cell Fate Decisions in the Wake of Histone H3 Deposition. **Frontiers in Cell and Developmental Biology** 9, 654915, doi:10.3389/fcell.2021.654915 (2021)

This is an invited review article, Sihem Cheloufi Structured the review, proposed the ideas discussed, analyzed the literature and wrote the paper. R. Franklin is a graduate student trainee in the Cheloufi lab.

- Blanco, M. A., Sykes, D. B., Gu, L., Wu, M., Petroni, R., Karnik, R., Wawer, M., Rico, J., Li, H., Jacobus, W. D., Jambhekar, A., **Cheloufi, S.**, Meissner, A., Hochedlinger, K., Scadden, D. T. & Shi, Y. Chromatin-state barriers enforce an irreversible mammalian cell fate decision. **Cell Reports** 37, 109967, doi:10.1016/j.celrep.2021.109967 (2021).

This is a collaborative project with established investigators in the epigenetics and stem cell fields. Sihem Cheloufi Intellectually contributed to the overall study, designed and performed the ATAC-seq experiments and assisted with data interpretation and manuscript writing.

- Schwarz, B. A., Cetinbas, M., Clement, K., Walsh, R. M., **Cheloufi, S.**, Gu, H., Langkabel, J., Kamiya, A., Schorle, H., Meissner, A., Sadreyev, R. I. & Hochedlinger, K. Prospective Isolation of Poised iPSC Intermediates Reveals Principles of Cellular Reprogramming. **Cell Stem Cell** 23, 289-305 e285, doi:10.1016/j.stem.2018.06.013 (2018).

This is a collaborative project with my postdoctoral training lab where I performed RNA-seq time series experiments during reprogramming, data analysis of reprogramming intermediates cell populations and manuscript writing.

- Cheloufi, S.** & Hochedlinger, K. Emerging roles of the histone chaperone CAF-1 in cellular plasticity. **Current Opinion in Genetics and Development** 46, 83-94, doi:10.1016/j.gde.2017.06.004 (2017).

This is an invited review article as part of a special issue on Cell Reprogramming that I wrote while transitioning from my postdoctoral lab at MGH to start my own group at UCR.

- Li, Y., Basavappa, M., Lu, J., Dong, S., Cronkite, D. A., Prior, J. T., Reinecker, H. C., Hertzog, P., Han, Y., Li, W. X., **Cheloufi, S.**, Karginov, F. V., Ding, S. W. & Jeffrey, K. L. Induction and suppression of antiviral RNA interference by influenza A virus in mammalian cells. **Nature Microbiology** 2, 16250, doi:10.1038/nmicrobiol.2016.250 (2016).

This is a collaborative study with a group at MGH and UCR where I contributed with reagents generated while I was a PhD student at CSHL. I also contributed intellectually with ideas during the study and provided feedback on the manuscript.

As Postdoctoral Fellow

- Borkent, M., Bennett, B. D., Lackford, B., Bar-Nur, O., Brumbaugh, J., Wang, L., Du, Y., Fargo, D. C., Apostolou, E., **Cheloufi, S.**, Maherali, N., Elledge, S. J., Hu, G. & Hochedlinger, K. A Serial shRNA Screen for Roadblocks to Reprogramming Identifies the Protein Modifier SUMO2. **Stem Cell Reports** 6, 704-716, doi:10.1016/j.stemcr.2016.02.004 (2016).
- Murn, J., Zarnack, K., Yang, Y. J., Durak, O., Murphy, E. A., **Cheloufi, S.**, Gonzalez, D. M., Teplova, M., Curk, T., Zuber, J., Patel, D. J., Ule, J., Luscombe, N. M., Tsai, L. H., Walsh, C. A. & Shi, Y. Control of a neuronal morphology program by an RNA-binding zinc finger protein, Unkempt. **Genes and Development** 29, 501-512, doi:10.1101/gad.258483.115 (2015).
- **Cheloufi, S.**, Elling, U., Hopfgartner, B., Jung, Y. L., Murn, J., Ninova, M., Hubmann, M., Badeaux, A. I., Euong Ang, C., Tenen, D., Wesche, D. J. #, Abazova, N. #, Hogue, M. #, Tasdemir, N., Brumbaugh, J., Rathert, P., Jude, J., Ferrari, F., Blanco, A., Fellner, M., Wenzel, D., Zinner, M., Vidal, S. E., Bell, O., Stadtfeld, M., Chang, H. Y., Almouzni, G., Lowe, S. W., Rinn, J., Wernig, M., Aravin, A., Shi, Y., Park, P. J., Penninger, J. M., Zuber, J. & Hochedlinger, K. The histone chaperone CAF-1 safeguards somatic cell identity. **Nature** 528, 218-224, doi:10.1038/nature15749 (2015).

Harvard Gazette press release: <https://news.harvard.edu/gazette/story/2015/12/researchers-help-cells-forget-who-they-are/>

- Apostolou, E., Ferrari, F., Walsh, R. M., Bar-Nur, O., Stadtfeld, M., **Cheloufi, S.**, Stuart, H. T., Polo, J. M., Ohsumi, T. K., Borowsky, M. L., Kharchenko, P. V., Park, P. J. & Hochedlinger, K. Genome-wide chromatin interactions of the Nanog locus in pluripotency, differentiation, and reprogramming. **Cell Stem Cell** 12, 699-712, doi:10.1016/j.stem.2013.04.013 (2013).
- Van Stry, M., Oguin, T. H., 3rd, **Cheloufi, S.**, Vogel, P., Watanabe, M., Pillai, M. R., Dash, P., Thomas, P. G., Hannon, G. J. & Bix, M. Enhanced susceptibility of Ago1/3 double-null mice to influenza A virus infection. **Journal of Virology** 86, 4151-4157, doi:10.1128/JVI.05303-11 (2012).
- Polo, J. M., Anderssen, E., Walsh, R. M., Schwarz, B. A., Nefzger, C. M., Lim, S. M., Borkent, M., Apostolou, E., Alaei, S., Cloutier, J., Bar-Nur, O., **Cheloufi, S.**, Stadtfeld, M., Figueroa, M. E., Robinton, D., Natesan, S., Melnick, A., Zhu, J., Ramaswamy, S. & Hochedlinger, K. A molecular roadmap of reprogramming somatic cells into iPS cells. **Cell** 151, 1617-1632, doi:10.1016/j.cell.2012.11.039 (2012).
- **Cheloufi, S.** & Hochedlinger, K. Reproductive biology: Stem cells bear eggs. **Nature** 491, 535-536, doi:10.1038/491535a (2012).

As Graduate Student

- Karginov, F. V., **Cheloufi, S.**, Chong, M. M., Stark, A., Smith, A. D. & Hannon, G. J. Diverse endonucleolytic cleavage sites in the mammalian transcriptome depend upon microRNAs, Drosha, and additional nucleases. **Molecular Cell** 38, 781-788, doi:10.1016/j.molcel.2010.06.001 (2010).
- Cifuentes, D., Xue, H., Taylor, D. W., Patnode, H., Mishima, Y., **Cheloufi, S.**, Ma, E., Mane, S., Hannon, G. J., Lawson, N. D., Wolfe, S. A. & Giraldez, A. J. A novel miRNA processing pathway independent of Dicer requires Argonaute2 catalytic activity. **Science** 328, 1694-1698, doi:10.1126/science.1190809 (2010).
- Chong, M. M., Zhang, G., **Cheloufi, S.**, Neubert, T. A., Hannon, G. J. & Littman, D. R. Canonical and alternate functions of the microRNA biogenesis machinery. **Genes and Development** 24, 1951-1960, doi:10.1101/gad.1953310 (2010).
- **Cheloufi, S.**, Dos Santos, C. O., Chong, M. M. & Hannon, G. J. A dicer-independent miRNA biogenesis pathway that requires Ago catalysis. **Nature** 465, 584-589, doi:10.1038/nature09092 (2010).

Technology application: [Artificial miRNA slows Huntington's](#)

CSHL press release: <https://www.cshl.edu/alternative-pathway-of-microrna-generation-is-uncovered/>

- Tam, O. H., Aravin, A. A., Stein, P., Girard, A., Murchison, E. P., Cheloufi, S., Hodges, E., Anger, M., Sachidanandam, R., Schultz, R. M. & Hannon, G. J. Pseudogene-derived small interfering RNAs regulate gene expression in mouse oocytes. **Nature** 453, 534-538, doi:10.1038/nature06904 (2008).
- Murchison, E. P., Partridge, J. F., Tam, O. H., **Cheloufi, S.** & Hannon, G. J. Characterization of Dicer-deficient murine embryonic stem cells. **Proceedings of the National Academy of Sciences U S A** 102, 12135-12140, doi:10.1073/pnas.0505479102 (2005).

As Undergraduate

- Qureshi, A., Zheng, R., Parlett, T., Shi, X., Balaraman, P., **Cheloufi, S.**, Murphy, B., Guntermann, C. & Eagles, P. Gene silencing of HIV chemokine receptors using ribozymes and single-stranded antisense RNA. **Biochemical Journal** 394, 511-518, doi:10.1042/BJ20051268 (2006).