



I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di Oncologia ed Emato-Oncologia**

Scientist- in - charge: **PROF. SAVERIO MINUCCI**

**[KOUROSH HAYATIGOLKHATMI]**

## CURRICULUM VITAE

### PERSONAL INFORMATION

Surname	HAYATIGOLKHATMI
Name	KOUROSH

### PRESENT OCCUPATION

Appointment	Structure
Postdoctoral Fellow	Istituto Europeo di Oncologia (IEO)

### EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
PhD	Molecular Oncology	Università degli Studi di Milano	2023
Master's Degree	Medical Genetics and Genomics	University of Glasgow	2016

### LANGUAGES

Languages	level of knowledge
English	Full Proficiency
Persian	Native
Italian	Beginner



## AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2023-2024	AIRC Predoctoral Fellowship
2019-2022	Marie Skłodowska-Curie ESR scholarship
2018	The best oral presentation in the 3 <sup>rd</sup> international and 15 <sup>th</sup> Iranian genetics congress
2018	The best poster presentation in the 2 <sup>nd</sup> international and 10 <sup>th</sup> national Iranian neurogenetics congress
2017	The best poster presentation in the 6 <sup>th</sup> national seminar on genetic counseling and prevention of disability
2012	The 1 <sup>st</sup> place award in the field of Scientific Journal (National Competition of Iranian Medical Universities)

## TRAINING OR RESEARCH ACTIVITY

I am an experimental oncologist studying the cellular and molecular mechanisms driving tumor initiation, progression, drug resistance and recurrence. At IEO, I have led several research projects exploring cancer epigenetics and the development of new therapeutic strategies for hematological and solid tumors. Through my years of research activities, I have been trained in several technical and transferable skills, including:

- **Cellular Biology Techniques:** Cell Culture - Drug Treatments and Screening - Drug Toxicity and Efficacy Assessment - Cell Proliferation and Viability Assays - Cell Cycle Studies - CFC assay - Flow Cytometry - Microscopy and Morphological Studies - Cell Line Generation and Modification - Viral Vector Production and Transfection - Live-Cell Imaging
- **Molecular Biology Techniques:** ATAC-seq - ChIP-seq - Immunoblotting - Histone Proteomics Data Interpretation - PCR and qPCR - RFLP-PCR - ARMS-PCR - RNA-seq - Genetic Engineering - mutagenesis - Immunofluorescence - Hi-C - ELISA
- **Data Analysis, Design and Visualization:** Statistical Analysis of Biological Data - Plasmid Design - Oligo Design - NGS and Sanger Sequencing Data Interpretation - SnapGene - Benchling - Image Lab - Fiji ImageJ - FlowJo - GraphPad Prism
- **Clinical Laboratory Techniques:** Blood and Bone-Marrow Morphology - Blood Banking and Transfusion - Clinical Biochemistry - BT, PT, PTT - ESR - Oximetry - Spectrophotometry - Hemoglobin Electrophoresis - Bacterial Isolation and Antibigram - Prokaryotic Genetics - Serological Analyses - Clinical Sampling - Mycology and Parasitology - Laboratory QC
- **Scientific Writing:** Several First and Co-First Publications - Scientific Writing (CNRS-IGH) - Scientific Integrity (EMBO) - Research Integrity in Biomedical Science (Oxford) - Data Ethics (CRG) - Communication and Education Certificate (ELISAVA) - Microsoft Office - Affinity Designer

## PROJECT ACTIVITY

Year	Project
2019-2024	A Cell Cycle Clock Determines Response to Epigenetic Therapy in Tumors
2019-2024	Automated Workflow for the Cell Cycle Analysis of (non-)Adherent Cells Using a Machine Learning Approach
2016-2019	Investigation of Targeted Inhibition of Transcription Factor Activity with Pyrrole Imidazole Polyamide in Chronic Myeloid Leukemia (CML)



2011-2018	Prevalence of $\beta$ -Thalassemia Mutations among Northeastern Iranian Population and their Impacts on Hematological Indices and Application of Prenatal Diagnosis, a Seven-Years Study
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## PRESENTATIONS IN CONGRESSES AND SEMINARS

Date	Title	Place
2022	EPIC CONFERENCE - Oral Presentation	Barcelona, Spain
2022	CANCER EPIGENETICS - PRINCIPLES, APPLICATIONS AND SINGLE-CELL RESOLUTION - Poster Presentation	Spetses, Greece
2022	EPISYSTEM 2022 STEM CELL EPIGENETICS INTERNATIONAL CONFERENCE - Poster Presentation	Milan, Italy
2018	7 <sup>TH</sup> NATIONAL SEMINAR ON GENETIC COUNSELING AND PREVENTION OF DISABILITY - Poster Presentation	Tehran, Iran
2018	3 <sup>RD</sup> INTERNATIONAL AND 15 <sup>TH</sup> IRANIAN GENETICS CONGRESS - Oral Presentation	Tehran, Iran
2018	2 <sup>ND</sup> INTERNATIONAL AND 10 <sup>TH</sup> NATIONAL IRANIAN NEUROGENETIC CONGRESS - Poster Presentation	Mashhad, Iran
2018	10 <sup>TH</sup> INTERNATIONAL CONGRESS OF LABORATORY AND CLINIC - Oral Presentation	Tehran, Iran
2017	3 <sup>RD</sup> INTERNATIONAL NASTARAN SYMPOSIUM ON CANCER PREVENTION - Poster Presentation	Mashhad, Iran
2017	6 <sup>TH</sup> NATIONAL SEMINAR ON GENETIC COUNSELING AND PREVENTION OF DISABILITY - Poster Presentation	Tehran, Iran

## PUBLICATIONS

Original Articles (First and Co-First Publications)
<b>Hayatigolkhatmi, K., Soriani, C., Soda, E., Ceccacci, E., El Menna, O., Peri, S., Negrelli, I., Bertolini, G., Franchi, G.M., Carbone, R. and Minucci, S., 2024.</b> Automated workflow for the cell cycle analysis of non-adherent and adherent cells using a machine learning approach. <i>eLife</i> , 13. DOI: <a href="https://doi.org/10.7554/eLife.94689.2">https://doi.org/10.7554/eLife.94689.2</a>
<b>Hayatigolkhatmi, K., Padroni, G., Su, W., Fang, L., Gómez-Castañeda, E., Hsieh, Y.C., Jackson, L., Pellicano, F., Burley, G.A. and Jørgensen, H.G., 2019.</b> An investigation of targeted inhibition of transcription factor activity with pyrrole imidazole polyamide (PA) in chronic myeloid leukemia (CML) blast crisis cells. <i>Bioorganic &amp; medicinal chemistry letters</i> , 29(18), pp.2622-2625. DOI: <a href="https://doi.org/10.1016/j.bmcl.2019.07.049">https://doi.org/10.1016/j.bmcl.2019.07.049</a>
Jaripour, M.E., Hayatigolkhatmi, K., Iranmanesh, V., Zand, F.K., Badiei, Z., Farhangi, H., Ghasemi, A.,



Banihashem, A., Esfehiani, R.J. and Sadr-Nabavi, A., 2018. Prevalence of  $\beta$ -thalassemia mutations among northeastern Iranian population and their impacts on hematological indices and application of prenatal diagnosis, a seven-years study. *Mediterranean Journal of Hematology and Infectious Diseases*, 10(1), p.2018042.

DOI: <https://doi.org/10.4084/mjhid.2018.042>

Hayatigolkhatmi, K., Padroni, G., Su, W., Fang, L., Gómez-Castañeda, E., Hsieh, Y.C., Jackson, L., Holyoake, T.L., Pellicano, F., Burley, G.A. and Jørgensen, H.G., 2018. Investigation of a minor groove-binding polyamide targeted to E2F1 transcription factor in chronic myeloid leukaemia (CML) cells. *Blood cells, molecules & diseases*, 69, p.119.

DOI: <https://doi.org/10.1016/j.bcmd.2017.11.002>

## Books and Reviews

Hayatigolkhatmi, K., Valzelli, R., El Menna, O. and Minucci, S., 2024. Epigenetic alterations in AML: Deregulated functions leading to new therapeutic options. *International review of cell and molecular biology*, 387, pp.27-75.

DOI: <https://doi.org/10.1016/bs.ircmb.2024.06.003>

## Original Articles (Middle-Name Publications)

Edizadeh, M., Chegeninejad, N., Akbari, S., Salehirad, M., Pakmanesh, R., Ahmadipour, S., Hayatigolkhatmi, K. and Khodadadi, H., 2021. Two novel biallelic variants in TECPR2 and FA2H genes causing complicated hereditary spastic paraplegia in Iranian families from Lur ethnicity: Case series. *Clinical Case Reports*, 9(6), p.e04293.

DOI: <https://doi.org/10.1002/ccr3.4293>

## OTHER INFORMATION

### Qualifications and Certificates

CANCER EPIGENETICS, 28.AUG.2022-03.SEP.2022, INTERCEPT-MDS, Spetses, Greece

SCIENTIFIC WRITING, 23.NOV.2021-25.NOV.2021, Institute of Human Genetics (CNRS-IGH), Montpellier, France

RNA FISH AND IMAGING, 22.MAR.2021-25.MAR.2021, Institute of Epigenetics & Stem Cells, Helmholtz Centre Munich, Friedrich Miescher Institute for Biomedical Research, Munich, Germany

SCIENTIFIC INTEGRITY, 24.NOV.2020, EMBO Laboratory Leadership, Barcelona, Spain

RESEARCH INTEGRITY - BIOMEDICAL SCIENCES, 22.OCT.2020, Oxford University, Online

HI-C AND COMPUTATIONAL BIOLOGY, 23.FEB.2020 - 26.FEB.2020, Centre for Genomic Regulation (CRG), Barcelona, Spain

SCIENCE COMMUNICATION AND EDUCATION, 19.FEB.2020 - 21.FEB.2020, ELISAVA - School of Design and Engineering, Barcelona, Spain

GENETIC COUNSELING, MAY.2017 - MAY.2018, State Welfare Organization of Iran cooperating with Academic Center for Education, Culture and Research (ACECR) Tehran University of Medical Sciences, Tehran, Iran

NEXT GENERATION SEQUENCING, 28.NOV.2017, Nastaran Centre for Cancer Prevention with cooperation of ACECR branch of Mashhad, Mashhad, Iran



Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Please note that CV WILL BE PUBLISHED on the University website and It is recommended that personal and sensitive data should not be included. This template is realized to satisfy the need of publication without personal and sensitive data.

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Place and date: Milan, 28/10/2024