TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type A fellowship at **Dipartimento di** ____ Oncologia ed Emato-Oncologia_____ Scientist- in - charge: " **Prof. Costanzo Vincenzo -,**

ID CODE: 6312

CURRICULUM VITAE

PERSONAL INFORMATION

| Surname | Sina |
|---------|----------|
| Name | Mohammad |

PRESENT OCCUPATION

| Appointment | |
|----------------|----------------|
| Not Applicable | Not Applicable |

EDUCATION AND TRAINING

| Degree | Course of studies | University | year of achievement of the degree |
|-------------------|---|--|-----------------------------------|
| Degree | Bachelor of Cellular & Molecular Biology -Biotechnology, | Rabe Rashid University, Iran | 2011 |
| Specialization | Not Applicable | Not Applicable | Not Applicable |
| Master | Master of Science MSc in Medical Biotechnology, | Tabriz University of Medical Sciences,Iran | 2015 |
| PhD | student of Molecular Genetics, Biotechnologies and Experimental Medicine, University of Brescia, Brescia | University of Brescia, Brescia | 29/11/2023 |
| Degree of medical | Not Applicable | Not Applicable | Not Applicable |



| specialization | | | |
|-----------------------------|-----------------------|----------------|----------------|
| Degree of Europecialization | ropean Not Applicable | Not Applicable | Not Applicable |
| Other | Not Applicable | Not Applicable | Not Applicable |

REGISTRATION IN PROFESSIONAL ASSOCIATIONS

| Date of registration | Association | City |
|----------------------|----------------|----------------|
| Not Applicable | Not Applicable | Not Applicable |

FOREIGN LANGUAGES

| Languages | level of knowledge | |
|-----------|--------------------|--|
| English | Proeficient | |

TRAINING OR RESEARCH ACTIVITY

Moderate skill in R programming and Linux operating system

- 1) iPSC culture and EBV transfection
- 2) PBMCs isolation from peripheral blood
- 3) Flow cytometry
- 4) Sequencing Analysis
- 5) Variations filtering and interpretation using ANNOVAR, Samtools, Varaft, and IGV
- 6) Copy Number Variation Analysis (CNVs)

using HMZDelFinder, ExomeDepth, cnmops.panel, and CoNVaDING, GATKgCNV,

- 7) removing low mappability regions
- 8) Cytogenetics and karyotyping
- 9) RNA bulk sequencing, RUV III, PRPS
- 10) Flow cytometry
- 11) NGS library preparation, first-hand

experience with PGM ion torrent chef

- 12) Fragment Analysis, including MSI
- 13) Humara Assay



- 14) DNA extractions from tissue and blood,
- 15) DNA purification from gel
- 16) PCR, touchdown PCR, Touch-up PCR, Long-range PCR
- 17) RNA extractions, RT-PCR, and Real-time PCR
- 18) Soluble expression of recombinant protein
- 19) Protein purification (pull-down)
- 20) SDS-PAGE
- 21) Cell culture
- 22) Bacterial culture
- 23) Mouse model management
- 24)Western blotting
- 25) Writing a systematic review
- 26) GWAS analysis
- 27) MLPA

PROJECT ACTIVITY

| ROJECT | ACTIVITI |
|--------|---|
| Year | Project |
| 2020 | I am a member of the Middle-East Network on Hereditary Colorectal Cancer (HCCN-ME) (https://www.hccn-me.com/) |
| 2019 | I have established lynchsyndrome.ir website to raise awareness among Iranian patients diagnosed with Lynch Syndrome |
| 2019 | I established a workshop on Genome-wide association study at Motamed cancer institute, Tehran, Iran |
| 2019 | I have established microsatellite instability testing at Motamed cancer institute, Tehran, Iran |
| 2019 | I have established KRAS and NRAS genetic testing at Motamed cancer institute, Tehran, Iran |

PATENTS

| Patent |
|----------------|
| Not Applicable |
| |



CONGRESSES AND SEMINARS

| Date | Title | Place |
|------|---|---|
| 2022 | ACMG Annual Clinical Genetics Meeting – American College Of Medical Genetics and Genomics. | Nashville, Tennessee, USA |
| 2018 | Conference speaking engagements "Current health care of families with Lynch syndrome in the Middle East and North African countries, conference of prevention colorectal cancer and the first Iranian hereditary colorectal cancer meeting | Mashhad, Iran |
| 2019 | Attended health research strategies in EU (Horizon 2020) and Iran AND training for applicants to horizon 2020 project | Imam Khomeini hospital, Tehran University of Medical, Tehran, Iran |
| 2019 | Attended 9th conferences on the new approaches of diagnosis and the treatment of colorectal cancer | Imam Khomeini hospital, Tehran University of Medical, Tehran, Iran |

PUBLICATIONS

Books (Not Applicable)

Sina M, Farajzadeh D, Dastmalchi S, 2015, Effects of Environmental Factors on Soluble Expression of a Humanized Anti-TNF- α scFv Antibody in Escherichia coli. Adv Pharm Bull, 5(4), 455-461. DOI: 10.15171/apb.2015.062

1) Sina, M., Ghorbanoghli, Z., Abedrabbo, A. et al. Identification and management of Lynch syndrome in the Middle East and North African countries: outcome of a survey in 12 countries. Familial Cancer (2020). https://doi.org/10.1007/s10689-020-00211-3

[title, place, publishing house, year ...]

Projects

- 1) **Sina, M.,** Ghorbanoghli, Z., Abedrabbo, A. et al Current health care of families with Lynch syndrome in the Middle East and North African countries, ready to submit
- 2) **Sina, M.**, Ghorbanoghli, Z, H. F. A Vasen, et al Identification and surveillance of Four Iranian Families with Lynch Syndrome and a family with *PMS1* pathogenic variants, ready to submit.



- 3) **Sina, M**. Giliani S, A de novo novel pathogenic variant in *CYBB* gene caused exon skipping in a female patient with Chronic granulomatous disease: a case report study. ready to submit
- **4) Sina, M.** Giliani S, et al Copy number variation analysis on exome sequencing data identified a 70 kb deletion in *MSH2* and *EPCAM* genes in two Iranian families. Ongoing
- 5) Julio, **Sina, M**. Giliani S, et al A de novo novel pathogenic variant in *MAGT1* gene caused exon skipping: a case report study. ongoing
- 6) **Sina M.**, Eidi M., Ferarro R. et al Copy number variant calling in a cohort of primary immunodeficiency disease using panel sequencing in diagnostic clinic: ongoing

| Congress proceedings (Not Applicable) | |
|---------------------------------------|--|
| [title, structure, place, year] | |
| [title, structure, place, year] | |
| [title, structure, place, year] | |

OTHER INFORMATION

Broad Research Areas: Medical genetics, DNA sequencing

Title of Ph.D.Thesis: "Identification and interpretation of pathogenic variants following Next Generation Sequencing (NGS) analysis in human Mendelian disorders".

Dissertation topic at M.Sc. level: "Effects of Environmental Factors on Soluble Expression of a Humanized Anti-TNF-α scFv Antibody in Escherichia coli".

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.

Please DO NOT SIGN this form.

Place and date:Sina, Brescia 05/22/2024)