

FAC-SIMILE

ALLEGATO B

DICHIARAZIONI SOSTITUTIVE DI CERTIFICAZIONI

(art. 46 D.P.R. n. 445/2000)

DICHIARAZIONI SOSTITUTIVE DELL'ATTO DI NOTORIETÀ

(art. 47 D.P.R. n. 445/2000)

..la. sottoscritta.

COGNOME ARSLANBAEVA

(per le donne indicare il cognome da nubile)

NOME LIAISAN

Visto il D.P.R. 28 dicembre 2000, n. 445 concernente "T.U. delle disposizioni legislative e regolamentari in materia di documentazione amministrativa" e successive modifiche ed integrazioni;

Vista la Legge 12 novembre 2011, n. 183 ed in particolare l'art. 15 concernente le nuove disposizioni in materia di certificati e dichiarazioni sostitutive (*);

Consapevole che, ai sensi dell'art.76 del DPR 445/2000, le dichiarazioni mendaci, la falsità negli atti e l'uso di atti falsi sono punite ai sensi del Codice penale e delle leggi speciali vigenti in materia, dichiara sotto la propria responsabilità:

che quanto dichiarato nel seguente curriculum vitae et studiorum
comprensivo delle informazioni sulla produzione scientifica
corrisponde a verità

Curriculum vitae et studiorum

studi compiuti, i titoli conseguiti, le pubblicazioni e/o i rapporti tecnici e/o i brevetti, i servizi prestati, le funzioni svolte, gli incarichi ricoperti ed ogni altra attività scientifica, professionale e didattica eventualmente esercitata (in ordine cronologico iniziando dal titolo più recente)

Es: descrizione del titolo

data protocollo

Dr. Liaisan Arslanbaeva

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Summary of qualifications:

- Considerable knowledge of molecular biology, cancer metabolism, neurodegeneration, redox signaling, FRET and biophysics of fluorescent proteins
- Gaining proficiency in various molecular biology, biochemistry and biophysical techniques
- Gaining proficiency in animal work
- Critical analysis of literature and data
- Grant writing, manuscript preparation and presentation skills
- Considerable experience to work independently on multiply challenging research projects
- Capacity to work on team with commitment to quality and collaborate effectively
- Excellent communication skills in English both scientific and non-scientific audiences
- Trained grad students

EDUCATION

PhD. Degree, A.N. Bakh Institute of Biochemistry of Russian Academy of Sciences,
May 2011, Moscow, Russia

Thesis: 'The development of genetically encoded FRET-sensors of caspase-3 based on of terbium- binding peptide and red fluorescent proteins DsRed2 and TagRFP'

PhD Degree in Biological Sciences

Diploma of Specialist, Lobachevsky State University of Nizhny Novgorod, Department of Biology
June 2006, Nizhny Novgorod, Russia

Specialization in Biology. Duration of degree 5 years. Evaluation 5/5.

Thesis: "The establishment of cancer cell line OAT-75 stably expressing red fluorescent protein DsRed2"

RESEARCH EXPERIENCE

1. **Research Fellow, TIGEM, 04/2022 – 12/2024, Pozzuoli, Italy**
Project 1: "**Development of FRET-sensor to study protein-protein interactions.**"
Project 2: "**Studying of mitochondrial dysfunction under MCLN1 KO in cancer cells.**"
Skills: methods to study mitochondrial and lysosomal pathology, methods of molecular cloning (Gibson assembly, in-Fusion cloning, touchdown PCR, mutagenesis PCR), high-content imaging (Opera and Operetta system).
2. **Research Fellow, University of Padua, 02/2019 -03/2022, Padua, Italy**
Project 1: "**The protective role of antioxidant pathways in the pathogenesis of amyotrophic lateral sclerosis**"
Skills: work with *Drosophila melanogaster* (maintenance, crossings of different lines), using of different readouts to study disease under overexpression/knockdown of different genes and drug test (lifespan, climbing, eye degeneration), larval and adult brain dissection for IF staining.
Project 2: "**The role of Ubiad1 in melanoma development**"
Skills: general techniques in molecular biology (qRT-PCR, Western Blotting), cancer cell culture experiments (invasion test, scratch assay, viability assay), cell death assays, lentivirus production and infection of cancer cells, co-immunofluorescence with confocal microscopy, oxidative stress assay (CellROX Deep Red, DHE, DCFDA), lipid peroxidation assay (MDA staining, Click-iT, Bodipy C11), DNA damage assay (PH2AX by FACS), quantification of fluorescence with ImageJ, work with mice (breeding, genotyping, subcutaneous and intraperitoneal injections), tissue collection from

- mouse (tumors, skin, lymph nodes), tissue slides preparation and H&E staining, extraction of murine embryonic fibroblasts, extraction and isolation of primary murine melanocytes,
3. **Research Fellow, Vanderbilt University Medical Center**, 04/2017-08/2018, Nashville, USA
 “Sirtuin 3 impairment and SOD2 acetylation in oxidative stress and hypertension” and “Role of bile acids and oxidative stress in induction of esophageal cancer”
Skills: general techniques in molecular biology (qRT-PCR, Western Blotting), cell culture work, endothelial cell extraction, work with mice (genotyping and breeding), extraction of mitochondrial particles, measurements of reactive oxygen species level by different methods.
 4. **Researcher, Institute of Molecular Biology, Russian Academy of Sciences**, 03/2015-11/2016, Moscow, Russia
 “Development of multiplex PCR assays for the detection of *Mycobacterium tuberculosis* using universal primer- adapter techniques, elongation heat pulses and microarray hybridization.”
Skills: multiplex PCR, primers selection.
 5. **Research Fellow, The Biophysics Institute, CNR**, 12/2013-12/2014, 12/2015-12/ 2016, Trento, Italy
 “Development of fluorescent pH-independent biosensor of chloride-ions in cells”
Skills: random and side-directed mutagenesis of E²GFP fluorescent protein, “OmniChange” mutant library generation, fluorescent library screening, molecular cloning, fluorescent microscopy and spectroscopy, cell culture work.

List of publications:

1. **Arslanbaeva L.**, Bisaglia, M. (2022) Activation of the Nrf2 Pathway as a Therapeutic Strategy for ALS Treatment. *Molecules*. 27(5):1471. <https://doi.org/10.3390/molecules27051471>.
2. **Arslanbaeva L.R.**, Ravazzolo M., Tosi, G., Simonato M., Tucci FA, Pece S, Cogo P. and Santoro M.M. (2022) UBIAD1 and CoQ10 protect melanoma cells from lipid peroxidation-mediated cell death. *Redox Biol*. 51:102272. doi: 10.1016/j.redox.2022.102272.
3. Oberkersch R.E., Pontarin G., Astone A., Spizzotin, M., **Arslanbaeva L.**, Tosi G., Panieri E., Ricciardi S., Allegra M. F., Brossa A., Grumati P., Bussolati B., Biffo S., Tardito S., Santoro M.M. (2022) Aspartate metabolism in endothelial cells activates the mTORC1 pathway to initiate translation during angiogenesis. *Dev. cell*, 57(10), 1241–1256.e8. <https://doi.org/10.1016/j.devcel.2022.04.018>.
4. **Arslanbaeva L.R.**, Santoro M.M. (2020) Adaptive redox homeostasis in cutaneous melanoma. Review. *Redox Biol*. 37:101753. doi: 10.1016/j.redox.2020.101753.
5. Dikalova A.E., Pandey A.K., Xiao L., **Arslanbaeva L.**, Sidorova T., Lopez M.G., Billings F.T. 4th, Verdin E., Auwerx J., Harrison D.G., Dikalov S.I. (2020) Mitochondrial deacetylase Sirt3 reduces vascular dysfunction and hypertension while Sirt3 depletion in essential hypertension is linked to vascular inflammation and oxidative stress. *Circ Res*. 126(4):439-452. doi:10.1161/CIRCRESAHA.119.315767.
6. Dikalov S., Itani H., Richmond B., **Arslanbaeva L.R.**, Vergeade A., Rahman S.M.J., Boutaud O., Blackwell T., Massion P.P., Harrison D.G., Dikalova A. (2019) Tobacco smoking induces cardiovascular mitochondrial oxidative stress, promotes endothelial dysfunction and enhances hypertension. *Am J Physiol Heart Circ Physiol*. 316(3):H639-H646. doi:10.1152/ajpheart.00595.2018.
7. Gokulan R.C., **Arslanbaeva L.R.**, Adcock J.M., Williams P., Dikalov S.I., Zaika A.I. (2018) Sa1108 - Isoketal Protein Adducts, which are formed as a result of Gastroesophageal Reflux, inhibit p63 protein activity and facilitate Esophageal Carcinogenesis. *Abstracts of Gastroenterology*. 154. doi: 10.1016/S0016-5085(18)31189-2C.
8. Jou R., Lee W.T., Kulagina E.V., Weng J.Y., Isakova A.I., Lin W.H., Antonova O.V., Wu M.H., **Arslanbaeva L.R.**, Tasi H.Y., Nosova E.Y., Zimenkov D.V. (2018) Redefining MDR-TB: Comparison of *Mycobacterium tuberculosis* clinical isolates from Russia and Taiwan. *Infect Genet Evol*. 72:141-146. doi: 10.1016/j.meegid.2018.12.031.
9. Zimenkov D.V., Nosova E.Y., Kulagina E.V., Antonova O.V., **Arslanbaeva L.R.**, Isakova A.I., Krylova L.Y., Peretokina I.V., Makarova M.V., Safonova S.G., Borisov S.E., Gryadunov D.A. (2017) Examination of

- bedaquiline- and linezolid-resistant *Mycobacterium tuberculosis* isolates from the Moscow region. *J Antimicrob Chemother.* 72(7):1901-1906. doi: 10.1093/jac/dkx094.
10. Paredes J.M., Idilli A.I., Mariotti L., Losi G., **Arslanbaeva L.R.**, Sato S.S., Artoni P, Szczurkowska J., Cancedda L., Ratto G.M., Carmignoto G., Arosio D. (2016) Synchronous Bioimaging of Intracellular pH and Chloride Based on LSS Fluorescent Protein. *ACS Chem. Biol.* 11(6): 1652-60. doi: 10.1021/acschembio.6b00103.
 11. Savitsky A.P., Meerovich I.G., Zherdeva V.V., **Arslanbaeva L.R.**, Burova O.S., Sokolova D.V., Treshchalina E.M., Baryshnikov A.Y., Fiks I.I., Orlova A.G., Kleshnin M.S., Turchin I.V., Sergeev A.M. (2012) Three-dimensional in vivo imaging of tumors expressing red fluorescent proteins. *Methods Mol Biol.* 872:97-114. doi:10.1007/978-1-61779-797-2_7.
 12. **Arslanbaeva L.R.**, Zherdeva V.V., Ivashina T.V., Vinokurov L.M., Morozov B.V., Olenin A.N., Savitsky A.P. (2011) Induction-resonance energy transfer between the terbium-binding peptide and the red fluorescent proteins Dsred2 and TagRFP. *Biofizika.* 56(3):389-95.
 13. **Arslanbaeva L.R.**, Zherdeva V.V., Ivashina T.V., Vinokurov L.M., Rusanov A.L., Savitsky A.P. (2010) Genetically encoded FRET-pair on the basis of terbium-binding peptide and red fluorescent protein. *Prikl. Biokhim. Mikrobiol.* 46(2):166-71.
 14. Turchin I.V., Kamensky V.A., Plehanov V.I., Orlova A.G., Kleshnin M.S., Fiks I.I., Shirmanova M.V., Meerovich I.G., **Arslanbaeva L.R.**, Zherdeva V.V., Savitsky A.P. (2008) Fluorescence diffuse tomography for detection of red fluorescent protein expressed tumors in small animals. *J Biomed. Opt.* 13(4):041310. doi:10.1117/1.2953528