Gayane Asatryan

Geologist/Micropaleontologist

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ORCID ID 0000-0001-6154-6523

Competencies

Languages

English
French
Russian
Armenian
German

IT Skills

Avizo
ArcGis
C ++
Microsoft Office
Corel Draw
Adobe Package

Career Summary

MOPGA GRI Fellow, PI of a project in the framework of Make Our Planet Great Again – German Research Initiative **2018-2022**

Museum für Naturkunde - Leibniz Institute for Evolution and Biodiversity Science, Berlin, Germany

RESPONSIBILITIES

- Leading the project **"Paleogene Polar Plankton and Paleoproductivity** (the P4 project)" and coordinating the research group,
- conducting extensive research in Paleogene radiolarians paleogeographic and paleoenvironmental reconstructions by using radiolarians as indicators of polar ocean currents and conditions, aiming to understand how plankton and oceans interacted with the atmospheric CO2 and climate change during the Paleogene,
- conduct and publish scholarly papers

Postdoctoral Research Fellow 2015 - 2018

School of Earth and Environmental Sciences, University of Queensland, Australia

KEY ACHIEVEMENTS

Developed new skills in using micro-CT combined Avizo 3d program in radiolarian research, refreshed skills in using Scanning Electron Microscope (particularly SEM JEOL 6610) in radiolarian research, developed independent project on radiolarian biostratigraphy and paleoenvironmental reconstructions and Paleogene climate in western Pacific.

RESPONSIBILITIES

- Conducted a research program in Early Paleozoic radiolarian evolution
- Undertook research in radiolarian biostratigraphy, paleogeography and paleoceanography

Observer/Paleontologist (Radiolaria) 2017

International Ocean Discovery Program, JOIDES Resolution

KEY ACHIEVEMENTS

Developed independent project on radiolarian biostratigraphy and paleoenvironmental reconstructions and Paleogene climate in Western Pacific.

RESPONSIBILITIES

Was part of the scientific Expedition 371 ''Tasman Frontier Subduction Initiation and Paleogene Climate'' in Tasman sea and provided biostratigraphic constraints for deep sea sediments from newly drilled IODP holes.

Postdoctoral research 2013 - 2014

University Lille 1, Laboratory Geosystems, France

KEY ACHIEVEMENTS

- Successfully published scholarly papers in peer reviewed international journals

RESPONSIBILITIES

- Conducted research in Mesozoic and Cainozoic radiolarian biostratigraphy and paleoenvironmental reconstructions in the framework of IANUS Erasmus Mundus program

Assistant 2012

Institute of Geology and Paleontology, University of Lausanne, Switzerland

KEY ACHIEVEMENTS

- Acted as the first assistant on the project: ''*Late Cretaceous Radiolarian biochronology*''

RESPONSIBILITIES

- Development of the Mesozoic Radiolarian Database based on Unitary Association Zones and study of Mesozoic and Cenozoic radiolarians from different DSDP, ODP and IODP sites at different localities in the Pacific and Atlantic Oceans as well as onshore

Postdoctoral — 2010 - 2011

University Lille 1, Geosystems Laboratory, France

KEY ACHIEVEMENTS

- Published various scholarly papers

RESPONSIBILITIES

- Conducted research in Mesozoic radiolarian biostratigraphy in the framework of DARIUS program

Research scientist — 2006 – 2015

Institute of Geological Sciences, National Academy of Sciences of Armenia

KEY ACHIEVEMENTS

- Successfully conducted and published scholarly papers in peer reviewed international journals
- Part of a teaching experience in stratigraphy and biostratigraphy (M2)

RESPONSIBILITIES

- Conducted research in Mesozoic radiolarian biostratigraphy and systematics, teaching stratigraphy and biostratigraphy (M2)

Professional Development

- 2018 – present - Humboldt-Institut, Part-time German language courses, Berlin, Germany
- 2018 - Sydney College of English - Cambridge Preparation Intensive English Courses, Sydney, New South Wales, Australia
- 2015 - 2017 University of Queensland - First Aid & CPR course, Avizo training run by invited specialists from Japan, SEM (Scanning Electron Microscopy) training: refreshment of experience of using SEM (JEOL 6610) and sample coating techniques at the Centre of Microscopy and Microanalyses at UQ. Also completed more than 100 hours of independent working experience in studying radiolarian microfossils with the SEM JEOL 6610 and various others., Brisbane, Australia
- 2014 - Organization and participation of the International geological field trip, Armenia: *"The Bartonian and Priabonian Boundaries in Southern Armenia. Problems and solutions",* Institute of Geological Sciences, National Academy of Sciences of Armenia
- 2012 - Organization and a participation of fieldworks to Verona-Trento, Italy: '' *Excursion Pelagic Alpin, Ticino''* and a cartography camp in Jura, The Rangers in the framework of the University of Lausanne, Switzerland
- 2006 - 2015 - International Geological field trips in ophiolitic zones of Armenia in the frameworks of MEBE (Middle East Basin Evolution), DARIUS programs with the collaborators from Pierre and Marie Curie University, Nice Sophia Antipolis University, and Lille 1 University, France, etc.
- 2006 - Laboratory research training at the University Pierre and Marie Curie (Paris 6), France
- 2001-2003 - Fieldwork in structural geology and geological mapping, field training in geophysical methods, general and applied geology, geodesy: gained skills and experience in fieldwork in geology, particularly in structural geology and geological mapping

Volunteering

- 2018 - Australian Museum - Events volunteering: night talks, workshops, senior days (Ex. Human Nature Night Talk: *Connection and cooperation in a time of climate change,* tackling climate change: *Why you're more powerful than you think, ''Oceania Rising: Climate Change in Our Region''*, ''*Hungry Tide'' screening*, part of the ''*Oceania Rising''* program), Sydney, New South Wales, Australia

Education

Diploma of Doctor of Philosophy in Geology, National Academy of Sciences of Armenia, Institute of Geological Sciences — 2011

PhD, University Pierre and Mary Curie, France: Diploma of Geosciences and Natural Resources, Paris 6, mention-very honorable — 2006 - 2010

MSc in Geology, State University of Yerevan, Armenia, mention-excellent — 2004 – 2006

BSc in Geology, State University of Yerevan, Armenia — 2000 – 2004

Publications

1. SUTHERLAND, R., DICKENS, G.R., BLUM, P., AGNINI, C., ALEGRET, L., **ASATRYAN, G.**, BHATTACHARYA, J., BORDENAVE, A., CHANG, L., COLLOT, J., CRAMWINCKEL, M.J., DALLANAVE, E., DRAKE, M.K., ETIENNE, S.J.G., GIORGIONI, M., GURNIS, M., HARPER, D.T., HUANG, H.-H.M., KELLER, A.L., LAM, A.R., LI, H., MATSUI, H., MORGANS, H.E.G., NEWSAM, C., PARK, Y.-H., PASCHER, K.M., PEKAR, S.F., PENMAN, D.E., SAITO, S., STRATFORD, W.R., WESTERHOLD, T., AND ZHOU, X. (2019). Expedition 371 summary. In Sutherland, R., Dickens, G.R., Blum, P., and the Expedition 371 Scientists, Tasman Frontier Subduction Initiation and Paleogene Climate. **Proceedings of the International Ocean Discovery Program**, 371: College Station, TX (International Ocean Discovery Program).

2. SUTHERLAND, R., DICKENS, G.R., BLUM, P., AGNINI, C., ALEGRET, L., **ASATRYAN, G.**, BHATTACHARYA, J., BORDENAVE, A., CHANG, L., COLLOT, J., CRAMWINCKEL, M.J., DALLANAVE, E., DRAKE, M.K., ETIENNE, S.J.G., GIORGIONI, M., GURNIS, M., HARPER, D.T., HUANG, H.-H.M., KELLER, A.L., LAM, A.R., LI, H., MATSUI, H., MORGANS, H.E.G., NEWSAM, C., PARK, Y.-H., PASCHER, K.M., PEKAR, S.F., PENMAN, D.E., SAITO, S., STRATFORD, W.R., WESTERHOLD, T., AND ZHOU, X. (2019). Expedition 371 methods. In Sutherland, R., Dickens, G.R., Blum, P., and the Expedition 371 Scientists, Tasman Frontier Subduction Initiation and Paleogene Climate. **Proceedings of the International Ocean Discovery Program**, 371: College Station, TX (International Ocean Discovery Program).

3. SUTHERLAND, R., DICKENS, G.R., BLUM, P., AGNINI, C., ALEGRET, L., **ASATRYAN, G.**, BHATTACHARYA, J., BORDENAVE, A., CHANG, L., COLLOT, J., CRAMWINCKEL, M.J., DALLANAVE, E., DRAKE, M.K., ETIENNE, S.J.G., GIORGIONI, M., GURNIS, M., HARPER, D.T., HUANG, H.-H.M., KELLER, A.L., LAM, A.R., LI, H., MATSUI, H., MORGANS, H.E.G., NEWSAM, C., PARK, Y.-H., PASCHER, K.M., PEKAR, S.F., PENMAN, D.E., SAITO, S., STRATFORD, W.R., WESTERHOLD, T., AND ZHOU, X. (2019). Site U1506. In Sutherland, R., Dickens, G.R., Blum, P., and the Expedition 371 Scientists, Tasman Frontier Subduction Initiation and Paleogene Climate. **Proceedings of the International Ocean Discovery Progra**m, 371: College Station, TX (International Ocean Discovery Program).

4. SUTHERLAND, R., DICKENS, G.R., BLUM, P., AGNINI, C., ALEGRET, L., **ASATRYAN, G.**, BHATTACHARYA, J., BORDENAVE, A., CHANG, L., COLLOT, J., CRAMWINCKEL, M.J., DALLANAVE, E., DRAKE, M.K., ETIENNE, S.J.G., GIORGIONI, M., GURNIS, M., HARPER, D.T., HUANG, H.-H.M., KELLER, A.L., LAM, A.R., LI, H., MATSUI, H., MORGANS, H.E.G., NEWSAM, C., PARK, Y.-H., PASCHER, K.M., PEKAR, S.F., PENMAN, D.E., SAITO, S., STRATFORD, W.R., WESTERHOLD, T., AND ZHOU, X. (2019). Site U1507. In Sutherland, R., Dickens, G.R., Blum, P., and the Expedition 371 Scientists, Tasman Frontier Subduction Initiation and Paleogene Climate. **Proceedings of the International Ocean Discovery Program**, 371: College Station, TX (International Ocean Discovery Program).

5. SUTHERLAND, R., DICKENS, G.R., BLUM, P., AGNINI, C., ALEGRET, L., **ASATRYAN, G.**, BHATTACHARYA, J., BORDENAVE, A., CHANG, L., COLLOT, J., CRAMWINCKEL, M.J., DALLANAVE, E., DRAKE, M.K., ETIENNE, S.J.G., GIORGIONI, M., GURNIS, M., HARPER, D.T., HUANG, H.-H.M., KELLER, A.L., LAM, A.R., LI, H., MATSUI, H., MORGANS, H.E.G., NEWSAM, C., PARK, Y.-H., PASCHER, K.M., PEKAR, S.F., PENMAN, D.E., SAITO, S., STRATFORD, W.R., WESTERHOLD, T., AND ZHOU, X. (2019). Site U1508. In Sutherland, R., Dickens, G.R., Blum, P., and the Expedition 371 Scientists, Tasman Frontier Subduction Initiation and Paleogene Climate. **Proceedings of the International Ocean Discovery Program**, 371: College Station, TX (International Ocean Discovery Program).

6. COTTON L.J., ZAKREVSKAYA E.Y., BOON A.V.D, **ASATRYAN G.**, HAYRAPETYAN F., ISRAYELYAN A., KRIJGSMAN W., LESS G., MONECHI S., MUSATOV V., PAPAZZONI C.A., PEARSON P.N., RAZUMOVSKIY A., RENEMA W., SHCHERBININA E., VASILYEVA., WADE B.S. (2016). *Integrated stratigraphy of the Priabonian (upper Eocene) Urtsazor section, Armenia.* ***Newsletters on Stratigraphy,*** DOI: 10.1127/nos/2016/0313.

7. AVAGYAN A., SHAHIDIA., SOSSON M., SAHAKYAN L., GALOYAN G., MULLER C., VARDANYAN S., BAHAR F.K, BOSCH D., DANELIAN T., **ASATRYAN G.,** MKRTCHYAN M. AND ALI SHOKRI M. (2016). New data on the tectonic evolution of the Khoy region, NW Iran. In M. Sosson, R. A. Stephenson and S. A. Adamia(Ed.), *Tectonic Evolution of the Eastern Black Sea and Caucasus*, London, United Kingdom: ***Geological Society***. doi:10.1144/SP428.13

8. DANELIAN T., **ASATRYAN G.,** SAHAKYAN L., AVAGYAN A. & GALOYAN G. (2015). Radiolarian evidence for the age of chert blocks from the Upper Cretaceous ophiolitic melange unit of the Erakh area (Armenia). Tectonic Evolution of the Eastern Black Sea and Caucasus. ***Geological Society Publishing House,*** DOI: 10.1144/SP428.7.

9. DANELIAN T., **ASATRYAN G.**, GALOYAN G., SAHAKYAN L. & STEPANYAN J. (2015) -Late Jurassic–Early Cretaceous radiolarian age constraints from the sedimentary cover of the Amasia ophiolite (NW Armenia), at the junction between the Izmir–Ankara–Erzinçan and Sevan–Hakari suture zones. ***International Journal of Earth Sciences***. First online: 29 July, DOI: 10.1007/s00531-015-1228-5, p. 1-14.

10. DANELIAN T., ZAMBETAKIS-LEKKAS A., GALOYAN G., SOSSON M., **ASATRYAN G.**, HUBERT B., GRIGORYAN A. (2014) - Reconstructing Upper Cretaceous (Cenomanian) paleoenvironments in Armenia based on Radiolaria and benthic Foraminifera; implications for the geodynamic evolution of the Tethyan realm in the Lesser Caucasus. ***Palaeogeography, Paleoclimatology, Palaeoecology,*** v. 413, p. 123-132.

11. DANELIAN T., **ASATRYAN G.,** GALOYAN G., SOSSON M., SAHAKYAN L., CARIDROIT M., AVAGYAN A. (2012) – Geological history of ophiolites in the Lesser Caucasus and correlation with the Izmir-Ankara-Erzincan suture zone: insights from Radiolarian biochronology. ***Bulletin de la Société Géologique de France****,* v. 183 *(4)*, p. 331-342.

12. **ASATRYAN G.,** DANELIAN T., SAHAKYAN L., GALOYAN G., SEYLER M., SOSSON M., AVAGYAN A., HUBERT L.M. B. AND VENTALON S. (2012) - Radiolarian biostratigraphic constraints for latest Jurassic-earliest Cretaceous submarine volcanic activity in the Tethyan oceanic realm of the Sevan ophiolite (Armenia). ***Bulletin de la Société Géologique de France****, July-August,* v. 183 *(4)*, p. 319-330.

13. DANELIAN T., SOSSON M., AVAGYAN A., GALOYAN G., **ASATRYAN G.,** ROLLAND Y., SAHAKYAN L, GRIGORYAN A., SEYLER M., PERSON A., HUBER B., JRBASHYAN R., MELKONIAN R., KARAKHANYAN A. (2011) - A brief geological outline of the Lesser Caucasus: New insights on its Tethyan-Alpine evolution based on recent results of a French Armenian collaboration. ***Société Géologique du Nord de France****,* v. 18, p. 65-75.

14. **ASATRYAN G.,** DANELIAN T., SOSSON M., SAHAKYAN L., GALOYAN G. (2011) - Radiolarian evidence for early Cretaceous (late Barremian - early Aptian) submarine volcanic activity in the tethyan oceanic realm preserved in Karabagh (Lesser Caucasus), ***Ofioliti*** *v. 36 (2), p. 117-126.*

15. DANELIAN T., **ASATRYAN G.,** SAHAKYAN L., GALOYAN G., SOSSON M. & AVAGYAN A. (2010) - New and revised Radiolarian biochronology for the sedimentary cover of ophiolites in the Lesser Caucasus (Armenia) – ***Geological Society London Special Publication****. Sedimentary basin tectonics from the Black Sea and Caucasus to the Arabian Platform,* v. 340, p. 383-391.

16. **ASATRYAN G.,** DANELIAN T., SOSSON M., SAHAKYAN L., PERSON A., AVAGYAN A. & GALOYAN G. (2010) - Radiolarian dating of the sedimentary cover of Sevan ophiolite (Armenia, Lesser Caucasus). ***Ofioliti,*** v. 35 *(2),* p. 91-101.

17. **ASATRYAN G.,** (2009) - New data on the age of ophiolites in the Vedi zone on the basis of Radiolarian assemblages. ***Proceedings of the National Academy of Sciences of Armenia, Earth Sciences,*** v. 62 *(2)*, p. 16-28.

18. DANELIAN T., **ASATRYAN G.,** SOSSON M., PERSON A., SAHAKYAN L. & GALOYAN G. (2008) - Discovery of Middle Jurassic (Bajocian) Radiolaria from the sedimentary cover of the Vedi ophiolite (Lesser Caucasus, Armenia) - ***C. R. PalEvol.,*** *Academie des sciences, Paris,* v. 7, p. 327–334.

Fellowships and grants

- MOPGA GRI fellowship (Make Our Planet Great Again – German Research Initiative): "Polar Oceans, Plankton and Oceanic Carbon Sequestration in a warm high pCO^2 world" - 2018-2022 (PI of the project), Berlin, Germany
- ARC Discovery projects: ''Early Palaeozoic radiolarian evolution'' - 2015-2018 (Postdoctoral research fellow), Brisbane, Australia
- Grant of Ministry of Education and Science of Armenia, State Committee of Science (15RF-078), Russian-Armenian collaboration: ''The elaboration of the integrated zonal scheme of Armenia on the basis of microbiota study for detailed Tethyan-Peritethyan Paleogene correlation and paleogeographic reconstructions'' – 2015-2017 (PI of the project), Yerevan, Armenia
- IANUS Erasmus Mundus fellowship: - Biostratigraphy of Radiolarians of the ophiolitic belts on the territory of Armenia - 2013-2014 (PI of the project), Lille, France
- Scholarship of the French Government: Project - Jurassic and Cretaceous Radiolaria from the sedimentary cover of ophiolites in Armenia. Palaeontology and biostratigraphy - 2007-2009, Paris, France

Congress, workshops, (selected)

- European Geosciences Union (EGU) General Assembly 7-12 April, 2019, Vienna, Austria: Asatryan G., Lazarus D., Renaudie J., The preliminary studies of plankton in the framework of the project "Paleogene Polar Plankton and Paleoproductivity".
- *American Geophysical Union (AGU) Fall Meeting* 10-14 December, 2018, Washington, USA
- *The Micropalaeontological Society (TMS) Annual meeting*, 14-15 November, 2018, Leeds, UK: Asatryan G., Lazarus D., Renaudie J., Paleogene polar phytoplankton and oceanic carbon sequestration.
- Franco-German Fellowship-Programme on Climate, Energy and Earth System Research, Make Our Planet Great Again – German Research Initiative Kick-off-Meeting, 11 and 12 October in Königswinter, Bonn, Germany
- *Dorothy Hill Women in Earth Science Symposium,* 15-16 November, 2017, The University of Queensland, Brisbane, Australia
- INTERRAD 15 – *15 Meeting of the International Association of Radiolarian Palaeontologists*, 22-27 October, 2017, Niigatta, Japan - ASATRYAN G., AITCHISON J., WEBBY B., A new methodology of studying radiolarians using 3D X-ray micro-CT imaging and Avizo software.
- *Australasian IODP Regional Planning Workshop,* June 13-16, 2017, Sydney, Australia
- *New England Orogen workshop, geology, tectonics and biostratigraphy (part of organasation-* Technique for picking and mounting radiolaria for Scanning Electron Miscroscopy (SEM), 20-21 March, 2017 at The University of Queensland, Brisbane, Australia
- *Nature Master Class: Scientific Writing and Publishing* workshop. December 3-4, 2016, Brisbane, Australia
- *Palaeo Down under 2,* 11-15 of July 2016, Adelaide (South Australia) - ASATRYAN G., AITCHISON J., WEBBY B., A new approach to the study of Ordovician radiolarians from the Malongulli Formation, New South Wales using 3D X-ray micro-CT imaging.
- *Silicofossil Group Meeting,* 28-30 of August 2013, Cambridge, UK
- *Middle East Basin Evolution Workshop,* 24-25 of July 2013, *Tbilisi, Georgia*
- *13 th Meeting of the International Association of Radiolarian Palaeontologists, A conference on Fossil and Recent Radiolarians,* 25-29 of March, 2012, Cadiz, Spain
- *Geobiology and Environments of silica biomineralizers:* 4-7 of September, 2011, University Lille 1, France
- *XIX Congress of the Carpathian Balkan Geological Association,* 23-26 of September, 2010, Thessaloniki, Greece
- *12 th Meeting of the International Association of Radiolarian Palaeontologists, Radiolarians Through time,* 14-17 of September, 2009, Nanjing, China
- *4e congrès de l'Association Paléontologique Français-21e réunion APLF,* 02-05 of June, 2009, Lille, France
- *Congrès de l'Association Paléontologique Français,* 3-5 Mai, 2007, Dignes-les-Bains, France

In-house talks, seminars (recent)

- Evolutionsbiologisches Seminar, Museum fur Naturkunde (MfN), *Paleogene polar plankton and a new methodology of studying radiolarians using 3D Xray micro-Ct imaging,* 14 March, 2019, Berlin, Germany

Media publications/interviews/Brownbag-Briefings (recent)

- Interview for ''IKON'' VIA-Plattform - Museum fur Naturkunde, about MOPGA GRI project, 19 November, 2018, Berlin, Germany, the project entry in the VIA: https://via.museumfuernaturkunde.berlin/wiki/110080
- Interview for DAAD newsletter "Aktuell" in the framework of Make Our Planet Great Again – German Research Initiative, 11 Oktober 2018, Berlin, Germany, the link to published article - https://www.daad.de/der-daad/daad-aktuell/de/66800-make-our-planet-great-again-german-research-initiative-forschung-fuer-die-zukunft-der-erde/
- Make Our Planet Great Again – German Research Initiative (MOPGA-GRI) Brownbag-Briefing, 18 September, 2018, Wissenschaftsforum Am Gendarmenmarkt, Berlin, Germany

Professional memberships

- European Geosciences Union (EGU)
- International Association of Radiolarian Scientists (InterRad)
- The Micropalaeontological Society (TMS)
- The UK Paleoclimate Society