CURRICULUM VITAE

Marianne Koller-Peroutka

Contact Address

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Date of Birth:	21.09.1977, Vienna
Marital Status:	married to Peter Koller, three children: Lisa (2015), Sarah (2016) and Anna (2021)
Nationality:	Austria

Education and Qualification

2015 – 2022 Supervisor and Co-Supervisor for BSc- and MSc-Thesis at the University of Vienna including the Master-Thesis: Hefel B. (2017), Caroline Ivesic (2022), Corina Schneeweis (2022);

2018 -2019 "Back to Research Grant" from the University of Vienna/Faculty of Life Sciences

2014 Doctoral **Defensio**

2005 - 2013 **Doctoral thesis** at the University of Vienna, Core Facility Cell Imaging and Ultrastructure Research, on: "Cell Physiological and Ecological Investigations on Droseraceae and Lentibulariaceae" (approbation 2013)

2002 - 2007: University of Vienna; "Lehramtstudium für Physik" (physics for teaching); **Graduation to MSc** (Magistra) in May 2007

1995 - 2002: University of Vienna; "Biologie und Erdwissenschaften LA" (biology and geological science for teaching); **Graduation to MSc** (Magistra) in April 2002; Diploma thesis in zoology: "Verhaltensexperimente bei drei Arten der Gattung *Bombina* (Anura, Amphibia) mit neuen Befunden zum Altersaufbau einer *Bombina variegata* Population" (Behavioural experiments on 3 different species of the genus *Bombina* (anura, amphibia) with new results on the age structure of a *Bombina variegate* population)

1987 - 1995: **Secondary School**, Wiedner Gymnasium, Vienna, Matura 06/1995

Professional Experience

2009 – date **Lecturer at the University of Vienna**, Faculty of Life Sciences, Cell Imaging and Ultrastructure Research for the courses "Theory and Application of Confocal Microscopy" (2008-date), and "Functional Cytology and Anatomy of the Plants" (till 2016) respectively "Functional Ecology of Carnivorous Plants. Structure and functioning of the traps and their glands" (Bachelor-Module, 2017 - 2020), as well as the excursion (UE+EX) "Austrian Carnivorous Plants and their Habitats" (2019-2021);

2006 – 2019 **Research projects and grants**

(1) "Tentacles at Work. Characterization of Tentacles in the Carnivorous Plant *Drosera*." Hochschuljubiläumsfonds of the City of Vienna to Caroline Ivesic & Marianne Koller-Peroutka (H-915048/2022) (10/2022 – running)

(2) "Back to Research Grant" from the University of Vienna/Unit of Human Resources and Gender Equality/Faculty of Life Sciences (09/2018 – 08/2019)

(3) "The Arsenic-Antimony-Creek in Sauerbrunn/Burgenland: A Toxic Habitat for Amphibians" Hochschuljubiläumsstiftung of the City of Vienna (H—237754/2014) to Marianne Koller-Peroutka & Wolfram Adlassnig (04/2015 – 2019)

(4) „Die Schwermetallresistenz von Schilf (*Phragmites australis*) und seine Verwendung zur Wiederbegrünung von Bergbauhalden" Hochschuljubiläumsstiftung oft he City of Vienna (H-3044158/2014) to Wolfram Adlassnig & Marianne Koller-Peroutka (04/2015 – 11/2016)

(5) "Symbionts in the Traps of Carnivorous Pitcher Plants" Hochschuljubiläumsstiftung of the City of Vienna to Marianne Peroutka & Wolfram Adlassnig (H-2130/2006), (2006 – 2009)

(6) "Ökosystem Moor" (Ecosystem of Peat Bog) and "Das Hochmoor Heidenreichstein" (The Peat Bog Heidenreichstein) – Two teaching films on the ecology and biodiversity of peat bogs. Project granted by the Province of Lower Austria, (2005 – 2007)

2007 – date: **Teacher for Physics, Biology and Scientific Lab** in secondary school in Vienna

2005 - 2007 **Assistant at the University of Vienna**, Institution of Cell Imaging and Ultrastructure Research; hands on training on Confocal Microscopy at the Universidade de Lisboa, Portugal, hands on training on plant transformation at the University of Bonn, Germany and two different trainings on Cryo-Electron Microscopy at the Radboud University Nijmegen, the Netherlands.

2004 – 2008 **Lecturer at the University of Vienna**, Institute for Ecology and Conservation Biology and Core Facility Cell Imgaging and Ultrastructure Research: "Biologische Einführungsübungen II" (Introductory Biological Lab Course II), "Funktionelle Zytologie und Anatomie der Pflanze: Struktur und Funktion der Drüsen von karnivoren Pflanzen" (Functional Cytology and Anatomy of Plants: Structure and Function of Glands of Carnivorous Plants), "Theorie und Anwendung des Konfokal-Mikroskops" (Theory and Application of Confocal Microscopy), "Desmidiologisch - moorkundliche Exkursion in die nördlichen Kalkalpen" (Desmidiologic Excursion to Fens of the Northern Limestone Alps)"

Review Activities, Memberships & Professional Skills:

2008 - date: Reviewer for peer-reviewed journals: *Acta Biologica Cracoviensia - Series Botanica*, *Hydrobiologia*, *Oikos*, *Protoplasma*, *Peer J*, *Carnivorous Plant Newsletter CPN*, *Plant Biosystems*, *PLOS ONE, Plant and Soil*, *Journal of Water and Land Development, Plants (MDPI)*.

2003 – date: Fellow of the Royal Microscopical Society (RMS), Member of the Austrian Society of Plant Biologists (ATSPB)

Skills: Plant Cell Biology, Plant Physiology, Environmental Animal & Plant Ecology, Fluorescence and Confocal Laser Scanning Microscopy, Physiology and Ecology of Carnivorous Plants;

PUBLICATIONS

a. Submitted Publication and Manuscripts in Preparation

KRAMMER, S., **KOLLER-PEROUTKA,** M, IVESIC, C. &. ADLASSNIG, W. (***in preparation***) Dynamics of Endocytosis in Droseraceae (genera: *Dionaea* and *Nepenthes*).

IVESIC, C., ADLASSNIG, W, **KOLLER-PEROUTKA,** M, KRESS, L. &. LANG, I. (***in preparation***) Snatching Sundews. Analysis of tentacle movement in two species of *Drosera* in terms of response rate, reaction time and speed of movement.

b. Publications in Peer-Reviewed Journals

ADLASSNIG, W., SCHMIDT, B, JIRSA, F., GRADWOHL, A., IVESIC, C. & **KOLLER-PEROUTKA** M. **2022**. The Arsenic-Antimony-Creek at Sauerbrunn/Burgenland/Austria: A Toxic Habitat for Amphibians. *Int. J. Environ. Res. Public Health, 19*(10): 6010. https://doi.org/10.3390/ijerph19106010

LICHTSCHEIDL, I., LANCELLE, S., WEIDINGER, M., ADLASSNIG, W., **KOLLER-PEROUTKA**, M., BAUER, S., KRAMMER, S. & HEPLER, P. K., **2021**. Gland cell responses to feeding in *Drosera capensis*, a carnivorous plant. *Protoplasma* 258(6) 1291-1306. doi: 10.1007/s00709-021-01667-5.

KOLLER-PEROUTKA, M.; KRAMMER, S.; PAVLIK, A.; EDLINGER, M.; LANG, I.; ADLASSNIG, W. **2019**. Endocytosis and Digestion in Carnivorous Pitcher Plants of the Family Sarraceniaceae. *Plants*, *8*(10): 367. https://doi.org/10.3390/plants8100367

KOLLER-PEROUTKA M, LENDL T, WATZKA M & ADLASSNIG W. **2015**. Capture of algae promotes growth and propagation in aquatic *Utricularia*. Annals of Botany 115(2): 227 - 236.

ADLASSNIG, W., S. SASSMANN, A. GRAWUNDER, M. PUSCHENREITERM, A. HORVATH & **KOLLER-PEROUTKA**, M. **2013**. Amphibians in metal-contaminated habitats. *Salamandra*, 49, 149 - 158.

ADLASSNIG, W., M. **KOLLER-PEROUTKA**, S. BAUER, E. KOSHKIN, T. LENDL & LICHTSCHEIDL, I.K. **2012** Endocytotic uptake of nutrients in carnivorous plants. *The Plant Journal*, 71, 303 - 3013.

ADLASSNIG W**, PEROUTKA** M & LENDL T. **2011**. Traps of carnivorous pitcher plants as a habitat: composition of the fluid, biodiversity and mutualistic activities. *Annals of Botany* 107(2): 181 - 194.

ADLASSNIG, W., E. MAYER, M. **PEROUTKA**, W. POIS & LICHTSCHEIDL, I. K. **2010** Two American *Sarracenia* species as neophyta in Central Europe. Phyton, 49: 279 - 292.

ADASSNIG W., G. STEINHAUSER, M. **PEROUTKA**, A. MUSILEK, J.H. STERBA, I.K. LICHTSCHEIDL & BICHLER, M. **2009**. Expanding the menu for carnivorous plants: uptake of potassium, iron and manganese BY carnivorous pitcher plants. *Applied Radiation and Isotopes* 67: 2117 - 2122.

STEINHAUSER, G., W. ADLASSNIG, T. LENDL, M. **PEROUTKA**, M. WEIDINGER, A. MUSILEK, I. K. LICHTSCHEIDL & BICHLER, M. **2009**. Metalloid Contaminated microhabitats and their biodiversity at a former Antimony mining site in Schlaining, Austria. *Open Environmental Science – Journal of Integrative Environmental Research*. 3: 26 - 41.

PEROUTKA, M., W. ADLASSNIG, M. VOLGGER, T. LENDL, W.G. URL & LICHTSCHEIDL, I. K. **2008**. *Utricularia*: a vegetarian carnivorous plant? Algae as prey of bladderwort in oligotrophic bogs. *Plant Ecology*, 199, 153 - 162.

PEROUTKA M, ADLASSNIG W, LENDL T, VOLGGER M, URL W.G. & LICHTSCHEIDL I. K. **2008**. The capture of algae by the aquatic *Utricularia*: a vegetarian carnivorous plant? *Physologia Plantarum* 133(3): P03-031.

STEINHAUSER, G., W. ADLASSNIG, M. **PEROUTKA**, A. MUSILEK, J. H. STERBA, M. BICHLER & LICHTSCHEIDL, I. K. **2007**. Application of radiotracers in an exotic field of botany: How to feed carnivorous plants. *Journal of Radioanalytical and Nuclear Chemistry*. 274: 403 - 410.

ADLASSNIG, W., M. **PEROUTKA**, G. EDER, W. POIS & LICHTSCHEIDL, I. K. **2006**. Ecophysiological observations on *Drosophyllum lusitanicum*. *Ecological Research* 21: 255 - 262.

PŁACHNO, B., L. ADAMEC, I. K. LICHTSCHEIDL, M. **PEROUTKA**, W. ADLASSNIG & VRBA, J. **2006**. Fluorescence labelling of phosphatase activity in digestive glands of carnivorous plants. *Plant Biology*: 8: 813 - 820.

ADLASSNIG, W., M. **PEROUTKA**, I. K. LICHTSCHEIDL & LAMBERS, H. **2005.** Roots of carnivorous plants. *Plant and Soil* 274: 127 - 140.

ADLASSNIG, W., M. **PEROUTKA**, I. LANG & LICHTSCHEIDL, I. K. **2005**. Glands of carnivorous plants as a model system in cell biological research. *Acta Botanica Gallica* 152: 111 - 124.

PEROUTKA, M., S. TSCHUMPEL & LICHTSCHEIDL, I.K. **2005** Traps and trapping mechanisms in *Utricularia*. *Acta Botanica Gallica*, 152: 262.

c. Publications in other journals

HEFEL B, **KOLLER-PEROUTKA** M, WEIDINGER M, SASSMANN S, ADLASSNIG W, LANG I. **2017**. Quick and Easy Cryo-Fixation with Aluminium Pockets: Tips & Tricks for a Preservation Method of Delicate Botanical Objects for EDX. *G.I.T. Imaging & Microscopy* 2: 34 - 36.

ADLASSNIG W, **KOLLER-PEROUTKA** M, LANG I. **2016**. Das neue Bild carnivorer Pflanzen. *Naturwissenschaftliche Rundschau* 69(1): 5 - 10.

KOLLER-PEROUTKA M, ADLASSNIG W. **2015**. Können fleischfressende Pflanzen auch Vegetarier sein? *Nutrition–News*. *Forum für klinische Ernährung, Infusionstherapie und Diätik*. 12(4): 5 - 6.

ADLASSNIG, W., M. **PEROUTKA**, W. POIS & LICHTSCHEIDL, I. K. **2006**. *Aldrovanda vesiculosa* and its cohabitant algae in culture. *Carnivorous Plant Newsletter* 35: 84 - 88.

PEROUTKA, M., K. RÖMER & ADLASSNIG, W. **2006**. Pünktlich durch gekämmtes Licht. Der Physik-Nobelpreis 2005. *Plus Lucis* 2006, 1-2: 52 - 54.

PRANJIĆ, K., W. ADLASSNIG, M. **PEROUTKA**, W. POIS, E. MAYER & LICHTSCHEIDL, I. K. **2006**. Flora and ecology of the ombrogenic fen "Schwarzes Moos". *Verhandlungen der Zoologisch-Botanischen Gesellschaft in Österreich*: 143: 97 - 111.

PEROUTKA, M., R. BOECKMANN & ADLASSNIG, W. **2003**. Algen als Indikatoren der Gewässergüte am Beispiel ausgewählter Süßgewässer des "Regenwalds der Österreicher" in Costa Rica. *In* R. Albert [ed.]: 2. *Halbjahresbericht 2003 Tropenstation La Gamba*, 9 - 10. Tropenstation La Gamba, Costa Rica.

d. Publications in Edited Books

ADLASSNIG, W., LENDL, T., **PEROUTKA**, M. & LANG, I. **2010** Deadly glue - adhesive traps of carnivorous plants. In Biological Adhesive Systems (von Byern, J. and Grunwald, I. eds): Springer: Vienna, 15-28.

ADLASSNIG W., LENDL T., **PEROUTKA** M. & LICHTSCHEIDL, I. K. **2009**. "Insektenfressende Pflanzen" - Darwin und die Anfänge der Karnivorenforschung. - In: *Stöcklin J. & Höxtermann E. (Eds.*), Darwin und die Botanik, 102 - 130. - Rangsdorf.

PEROUTKA M., ADLASSNIG W., LENDL T., PRANJIĆ K. & LICHTSCHEIDL, I. K. **2008**. Functional biology of carnivorous plants. - In: *Teixeira da Silva J. A. (Ed.)*, Floriculture, Ornamental and Plant Biotechnology. Advances and Topical Issues, 266 - 287. - Isleworth.

STEINHAUSER G., ADLASSNIG W., MUSILEK A., **PEROUTKA** M. & BICHLER, M. **2006**. Uptake of potassium, iron, and manganese by carnivorous plants. - In: *Lahiri S., Nayak D. & Mukhopadhyay A. (Eds.)*, Application of Radiotracers in Chemical, Environmental and Biological Sciences, 219 - 220. - Kolkata.

ADLASSNIG W., **PEROUTKA** M., LICHTSCHEIDL I. K. & LAMBERS, H. **2005**. Roots of carnivorous plants. - In: *Lambers H. & Colmer T. D. (Eds.)*, Root physiology: from gene to function, 127 - 140. - Heidelberg.

e. Congress Contributions

IVESIC, C., **KOLLER-PEROUTKA**, M., ADLASSNIG, W. LANG, I. **2021**. Three functional types of tentacles in Drosera. 23rd *Meeting Austrian Society of Plant Biology (ATSPB),* Seitenstätten, Lower Austria.

KOLLER-PEROUTKA M., ADLASSNIG W., GÖRGL S., LANG I. **2017**. Vegetarische Karnivore? Der vielfältige Speiseplan von aquatischen *Utricularien*. *JHV der Gesellschaft für Fleischfressende Pflanzen*, Orangerie Schönbrunn Vienna, Austria.

HEFEL B., **KOLLER-PEROUTKA** M., ADLASSNIG W., ADAMEC L., WEIDINGER M., LANG I., LICHTSCHEIDL I. K. **2016**. Element Uptake from Prey in the Aquatic Carnivorous Plant *Utricularia* (Lentibulariaceae). 21st *Meeting Austrian Society of Plant Biology* (ATSPB), Berchtesgarden, Germany.

ADLASSNIG W., SUPOKUVIC J., **KOLLER-PEROUTKA** M., WESSELY R., EDLINGER M. & LICHTSCHEIDL I. K. **2016** Nutrient uptake in pygmy sundew: implications for the evolution of carnivorous snap traps. 21st *Meeting Austrian Society of Plant Biology* (ATSPB), Berchtesgarden, Germany.

GÖRGL S., ADLASSNIG W., **KOLLER-PEROUTKA** M, LANG I., LICHSCHEIDL I. K. **2016**. Dynamics of nutrient uptake in carnivorous Caryophyllales. 21st *Meeting Austrian Society of Plant Biology* (ATSPB), Berchtesgarden, Germany.

KOLLER-PEROUTKA M., HEFEL B., ADLASSNIG W., ADAMEC L., SASSMANN S., LICHTSCHEIDL I. K. **2014** Element Analysis by *EDX* in Aquatic Carnivorous Plants. 18th *International Microscopy Congress*. *Prague*, Czech Republic.

ADLASSNIG W., **PEROUTKA** M**.** & LICHTSCHEIDL I. K. **2011**. Endocytotic uptake of nutrients in carnivorous pitcher plants. 9th *International microscopy meeting* RMS, Wageningen University, Netherlands.

ADLASSNIG W., POHL S., PRANJIĆ K., **PEROUTKA** M., LICHTSCHEIDL I.K. **2010.** Glands and glandular cells in adhesive traps of carnivorous plants. *Meeting of the European COST TD0906 Network* "Biological Adhesives" Tiergarten Schönbrunn in Vienna, Austria.

PEROUTKA M., ADLASSNIG W., LENDL T., VOLGGER M., URL W. G., LICHTSCHEIDL I. K. **2008**. The capture of algae by aquatic *Utricularia*. - 16th *Congress of the Federation of European Societies of Plant Physiology*, Tampere, Finland.

ADLASSNIG W., STEINHAUSER G., **PEROUTKA** M., BICHLER M., LICHTSCHEIDL I. K. **2008**. Uptake of metallic nutrients by the traps of carnivorous pitcher plants. – 16th *Congress of the Federation of European Societies of Plant Physiology*, Tampere, Finland.

ADLASSNIG W., STEINHAUSER G., **PEROUTKA** M., BICHLER M., LICHTSCHEIDL I. K. **2008**. Aufnahme metallischer Nährelemente durch die Fallen karnivorer Kesselfallenpflanzen. – 17th *Meeting of Austrian Society of Plant Biology* (ATSPB), Stainz, Austria.

PEROUTKA M., ADLASSNIG W., LENDL T., VOLGGER M., URL W. G., LICHTSCHEIDL I. K. **2008**. *Utricularia* - eine vegetarische Pflanze? Algen als Beuteorganismen aquatischer Wasserschlaucharten. – 17th *Meeting of Austrian Society of Plant Biology* (ATSPB), Stainz, Austria.

PRANJIĆ K., ADLASSNIG W., STOECKER K., DAIMS H., **PEROUTKA** M., LICHTSCHEIDL I. K. **2007**. A microscopical search for putative mutualistic micro-organisms in carnivorous plants. 8th *Botanical Microscopy Meeting,* Salzburg, Austria.

LENDL T., ADLASSNIG W., **PEROUTKA** M., LICHTSCHEIDL I. K. **2006**. The carnivorous syndrome of *Genlisea*. XV *FESPB Congress*, Lyon, France: 195.

STEINHAUSER G., ADLASSNIG W., MUSILEK A., **PEROUTKA** M., BICHLER M. **2006**. Uptake of potassium, iron, and manganese by carnivorous plants. - *International Conference on Application of Radiotracers in Chemical, Environmental and Biological Sciences*, Kolkata, India.

ADLASSNIG W., **PEROUTKA** M., EMMER M., PRANJIĆ K., SPRINZL R., PIRINGER K., POIS W., STEINER G.., LICHTSCHEIDL I. K. **2005**. The Nature Reserve Park "Heidenreichstein" in Lower Austria: An example for conservation, management, and economic significance of a regenerating peat bog. XVII *International Botanical Congress*, Vienna, Austria.

PEROUTKA M., ADLASSNIG W., EDER G., POIS W., LICHTSCHEIDL I. K. **2005**. Pedological and microclimatic requirements of *Drosophyllum lusitanicum*. XVII *International Botanical Congress*, Vienna, Austria.

MAYER E., ADLASSNIG W., **PEROUTKA** M., LICHTSCHEIDL I. K. **2005**. Microflora in the traps of pitcher plants. XVII *International Botanical Congress*,Vienna, Austria.

STEINHAUSER G., ADLASSNIG, W., MUSILEK A., **PEROUTKA** M., BICHLER M. **2005**. Erstmaliger Nachweis über die Aufnahme von K in fleischfressenden Pflanzen mittels ^{42}K. 20. *Seminar für Aktivierungsanalyse,* Munich, Germany: 20.

PEROUTKA M., TSCHUMPEL S., LICHTSCHEIDL I. K. **2004** Traps and trapping mechanisms in *Utricularia*, in 5th *International Congress of the Carnivorous Plant Society* (I.C.P.S.) *Congress*, Lyon, France.

ADLASSNIG W., **PEROUTKA** M., LICHTSCHEIDL I. K. **2003**. Cytoarchitecture and cytochemistry of *Sphagnum* chlorocytes. 7th *International Botanical Microscopy Meeting*, Lisbon, Portugal.

SEIDEL B., YAMASHITA M., **PEROUTKA** M., DITTAMI J. **2001**. Gravitiy Related sensitivity and behaviour in the genus *Bombina* (Anura, Amphibia), in 4th *World Congress of Herpetology*, Bentota, Sri Lanka.

f. Scientific and educational films

ADLASSNIG W., T. LENDL, M. **PEROUTKA** & LICHTSCHEIDL, I.K. **2008**: Ökosystem Moor. Educational Film, DVD-Video, 60 min., PAL, 4:3.

ADLASSNIG, W., T. LENDL, M. **PEROUTKA**, M. VOLGGER & LICHTSCHEIDL, I.K. **2008**. Ökosystem Moor. Accompanying publication of the educational film "Ökosystem Moor". 62 pp.

LENDL T., M. **PEROUTKA**, W. ADLASSNIG & LICHTSCHEIDL, I.K. **2008**: Das Hochmoor Heidenreichstein. Educational Film, DVD-Video, 12 min., PAL, 4:3.