

Curriculum vitae

Dr. rer. nat. Annette Damert, M.A.

Personal Information

Address Str. Pandurilor 7/506,
RO - 400376 Cluj-Napoca, Romania

Phone ++40-740 – 483044 (mobile)

E-mail annette.damert@gmx.de,
adamert@hasdeu.ubbcluj.ro

Date of birth March 24, 1967

Nationality German

Qualifications

- Diplom-Pharmazeut für Experimentelle Pharmakologie und Toxikologie
- Dr.rer.nat. (PhD) in Molecular Biology
- M.A. East European Studies

Current occupation

Senior Researcher at the Molecular Biology Centre, Institute for Interdisciplinary Research in Bio-Nano Sciences, Babes-Bolyai-University, Cluj-Napoca, Romania

Professional experience

10. 2007- present

- Babes-Bolyai-University, Cluj-Napoca, Romania
- Research Associate (until 10.2009); Senior Researcher
- Basic research: Mobile genetic elements
- Teaching activity: Genetics (undergraduate lecture courses)
Recombinant DNA Technology (Master courses)

12. 2001- 09. 2005

- Paul-Ehrlich-Institute, Federal Agency for Sera and Vaccines, Langen, Germany
- Research Associate, deputy of the department head
- Basic biomedical research: Endogenous Retroviruses, Mobile genetic elements
- Teaching and organizational activities

02. 2000- 11. 2001

- Institute for Pharmacology and Toxicology, Charite, Medical Faculty of the Humboldt-University Berlin, Germany
- Research Associate
- Basic research: Embryonic stem cells, Developmental Biology
- Teaching and organizational activities

02. 1999- 12. 1999

- Institute of Medical Biochemistry, Göteborg University, Göteborg, Sweden
- Postdoc
- Basic research: Developmental Biology

08. 1997- 12. 1997

- Samuel-Lunenfeld-Research-Institute, Mount Sinai Hospital, Toronto, Canada
- Postdoc (Research Stay)
- Basic research: Developmental Biology of the vascular and hematopoietic system

12. 1994- 01. 1999

- Max-Planck-Institute for Physiological and Clinical Research, Bad Nauheim, Germany
- Postdoc
- Basic research: Tumour biology – vascularisation, Developmental Biology of the vascular and hematopoietic system

09. 1985- 08. 1986

- VEB Berlin Chemie, Department of Pharmacology, Berlin, Germany
- Compulsory internship in preparation for university studies

Education and Training

10. 2005 – 10.2007

- Freie Universität Berlin
- East European Studies Online
- M.A.

09. 1991- 11. 1994

- Ernst-Moritz-Arndt-University Greifswald
- PhD studies Molecular Biology
- Dr. rer. nat.

09. 1986- 07. 1991

- Ernst-Moritz-Arndt-University Greifswald
- Pharmacy/ Experimental Pharmacology and Toxicology
- Diplom-Pharmazeut

Personal Skills

Languages

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|-------------------|----------|--|-----------|
| Native language | German | | |
| Foreign languages | English | fluent | |
| | Russian | Sprachkundigenabschluss IIa (corresponds to UNICERT III); passive knowledge good, active knowledge requires practice | |
| | Romanian | reading | very good |
| | | writing | good |
| | | speaking | good |

IT

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|------------------|---------------------|-----------------|
| Microsoft Office | Word und Powerpoint | very good |
| | Excel | basic knowledge |

Statement of research interests and anticipated future direction

In the last years my prime research interest has been in mobile genetic elements. SVA elements, specific to hominids, are composite retrotransposons representing the third largest and evolutionary youngest group of retrotransposons in the human genome. Investigations carried out in close collaboration with former colleagues at the Paul-Ehrlich-Institute, Langen, Germany, revealed that SVAs can transduce sequences flanking source elements at their 5' ends. We could provide evidence that SVA elements co-mobilize parts of protein coding sequences and, thus, contribute to genome evolution through exon shuffling (Damert et al. 2009, *Genome Res.* 19:1992-2008). A second line of research has focussed on the investigation of the mechanism of SVA retrotransposition. We could show that SVA elements are mobilized by the LINE-1 autonomous retrotransposon in *trans* (unpublished data). However, the exact sequence and/or structural requirements determining efficiency of this mobilization process are still elusive. Thus, the detailed characterization of the SVA mobilization mechanism will be a major topic of my future research. In addition, I would like to explore LINE-1-mediated pseudogene formation of ribosomal protein genes, which represent the largest group of pseudogenes found in the human genome and possess a polypyrimidine stretch at the 5' ends of their RNAs – as do SVAs. A last unsolved question as far as SVAs are concerned is the exact sequence of their assembly as composite retrotransposons in hominid evolution.

Apart from SVAs my research in the last year has focussed on the characterization of mobile genetic elements (LINEs and SINEs) in marine bivalve and gastropod molluscs with the perspective to use SINE polymorphisms as markers in population genetic studies in these non-model species. Preliminary results obtained for two gastropod and two bivalve species are promising and merit further investigation.