

Abstract and Poster Requirements Mosa Conference 2018 for BMS students

In this document you will find all the information about submitting your abstract for Mosa Conference 2018 on **June 19th & 20st 2018**.

Key points for submitting:

- **Deadline: April 22nd 2018, 23:59 h**
- Submission: Upload abstract at mosa-conference.nl → participants → submit abstract
- File name: [Last name_First name.docx]
- File format: Microsoft Word file (.doc or .docx)
- Written in English, max. 300 words
- A4 format, font Arial 11
- **This is not your final abstract for the Master Thesis!**

Detailed instructions and an example abstract are given on the following pages.

Good luck writing your abstract!

Abstract Requirements BMS

Content requirements

- Language: The abstract should be written in the English language only.
- Word limit: The limit of the abstract is 300 words. Title and author are not included. Characters that are not in isonorm 8859-1 cannot be used. This means: α , β or other Greek characters need to be spelled out (“alpha” and “beta”).
- Supervision: Names of student, supervisor(s) and institutional supervisor including affiliations should be stated on the abstract as well as the institute/location of the internship.

Style requirements

- File format: Microsoft Word file (.doc or .docx). Labelled: **Last name_First name.docx**
- Format and point size: Arial, size 11.
- Page Layout Guideline for A4: (21 cm x 29,7 cm) paper size. Page Layout should be as follows: Top – 3 cm, Bottom – 3 cm, Left – 3 cm, Right – 3 cm. This is important to ensure no text is lost when printing your abstract.
- Tables and figures: Can be added in addition to the abstract itself. However, the abstract should not be longer than **one A4 page!** Mosa Conference cannot guarantee that tables and figures will be placed in the book of abstracts.
- Refer to your university in English, example: ‘Maastricht University’.

Scientific abstracts should contain the following paragraphs:

- **Introduction:**
Describes the current state of scientific progress regarding the scientific field. It should also contain the aim of the project and its scientific and/or social relevance.
- **Materials & methods:**
Materials and methods used in the project should be described, such as a short summary of the study population (humans, animals), materials used (equipment, chemicals, etc.), how data was acquired (status, interviews, etc.) and which statistical analyses have been performed.
- **Results:**
Contains findings and results of the project. A small table or graphic is possible. The results section should not contain an interpretation of the results!
- **Discussion & conclusions:**
Presents the interpretation of the results and the conclusions drawn from the study. Furthermore, limitations of the study, implications for future studies and the consequences can be included

Important: Received abstracts that do not meet the submission requirements as described above will not be published in the book of abstracts.

Additional information

- Abstracts will be compiled in a (digital) book of abstracts.
- Note: In case your research project deals with confidential material (e.g. IP, patent), please mention this (incl. the reason why it is confidential) in the mail when submitting the abstract. Please note that confidential abstracts will not be included in the abstract book.
- Abstracts will be judged and the five best abstracts will get an oral presentation at the conference with the possibility to win the price for best presentation. The five candidates will be informed via mail by the end of May
Note: **All students have to prepare and present a poster**, including the ones who will give an oral presentation!
- The abstract you hand in for the Mosa Conference does not need to be the final version! For your Master Thesis you are still allowed to change and adapt it.

Jan Janssen

Maastricht University - Cardiovascular Research Institute Maastricht (CARIM) – Molecular Genetics

High-Density Lipoproteins exert pro-inflammatory effects on macrophages

Introduction: High-Density Lipoproteins (HDLs) have potent anti-inflammatory effects in endothelial and smooth muscle cells and play a crucial role in the reverse cholesterol transport pathway. Altogether, HDLs protect against cardiovascular diseases. However, very little is known about the cell-specific effects of HDLs on macrophages, the main players in atherosclerosis. We hypothesized that HDLs have anti-inflammatory effects in macrophages

Material & methods: Mouse bone marrow-derived macrophages were incubated 24h with various concentrations human reconstituted HDLs (rHDLs) or native HDLs, followed by a 6 or 24h stimulation with LPS (10 ng/ml). Expression levels of inflammatory mediators were determined by qPCR and ELISA. The statistical significance of differences ($p < 0.05$) was evaluated with the Student's t-test.

Results: Pre-incubation with either rHDLs or native HDLs significantly decreased anti-inflammatory IL-10 gene and protein expression in a concentration dependent manner, while the opposite was observed for the pro-inflammatory mediators IL-12, TNF-alpha and NO. These pro-inflammatory effects were confirmed in mice with high circulating human HDL levels. Peritoneal macrophages from these mice also showed significantly more pro-inflammatory IL-12 expression compared to wildtype macrophages.

HDLs pre-incubation of macrophages from ABCA1^{-/-}, ABCG1^{-/-} or SR-BI^{-/-} mice showed no significant difference in inflammatory response compared to macrophages from wildtype mice, indicating that the observed HDLs effects are not mediated by these cholesterol transporters. Expression analyses indicate that the NF-kappaB pathway is involved in mediating the pro-inflammatory HDL effects in macrophages.

Discussion & conclusions: Although HDLs have been shown to exert anti-inflammatory functions in various cells, we showed that HDLs exert pro-inflammatory effects on macrophages *in vitro* and *in vivo*. HDLs are considered to be promising atheroprotective agents, though therapeutic applications so far have been disappointing. Our data may implicate a negative effect on macrophages. Therefore, it remains to be determined whether HDLs are suitable therapeutic agents for the prevention of cardiovascular diseases.