
Elective course track „Immunology in Research and Clinics”

Seminar „Immunology and Complementary & Integrative Medicine II” (ImmuCIM-II): Molecular mechanisms of selected complementary medicine therapies and their effects on the immune system

Dates: WS 2018/19, 18.10.2018 – 07.02.2019, weekly on Thursdays

Time: 3.00 – 4.30 PM

Location: INF 329, SR 26, Heidelberg University, Medical Faculty Heidelberg, 69120 Heidelberg

Instructors: Prof. Dr. med. Yvonne Samstag, Prof. Dr. Maria Hänsch

Summary

On the basis of selected complementary medical methods, their effect on the immune system or the defense against infection is presented (lecture). In self-study, the students acquire knowledge about immunological effects of further complementary medicine methods, which are presented and discussed in form of seminars. The seminar presentation and a corresponding written summary will be accepted as examination. Guidelines, suggestions for appropriate complementary medicine methods and references to literature will be provided. The aim is to introduce and develop new scientific approaches to analyze the immunomodulatory effects of selected complementary medical methods.

Main topics:

1) Herbal ingredients and dietary supplements (5 lessons)

Presentation of used substance groups, classification, manufacturing process, previously known molecular mechanisms on the immune system and observed clinical effects with focus on infection control and rheumatoid diseases.

2) Acupuncture (1 lesson)

Basic knowledge and clinical effects are presented by a trained acupuncture doctor. Possible target structures are discussed with a focus on recent data from neuro-immunology.

3) Photobiomodulation (1 lesson)

An example of a modern, non-classical complementary procedure. Application examples, target structures and molecular mechanisms with a focus on dermatologically relevant findings are discussed.

4) The intestine and the intestinal microbiome (2 lessons)

On the one hand the intestine is the largest immune organ, on the other hand the intestinal flora ("microbiome") influences the immune response. Discussed are the mutual influence as well as possibilities and consequences of a change in the intestinal microbiome, e.g. through nutrition and its importance for chronic inflammatory bowel disease.

5) Excursion to a manufacturer of phytopharmaceuticals (1 afternoon)

6) Excursion to a complementary medical clinic (1 afternoon)