

# **ilab** - concept for modern balneological and spa medicine research in the Czech Republic

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# Karlovy Vary

- the largest and the most visited spa town in the Czech Republic;
- fashionable, dynamic and international health resort;
- natural mineral water sources;
- the water's healing properties have been known since the Middle Ages;
- spa treatment with a tradition extending over 650 years;
- unique therapeutic landscape dedicated to 'taking the cure', relaxation and enjoyment.



In 2021, the city became part of the transnational **UNESCO** World Heritage Site under the name "**Great Spa Towns of Europe**"

## GREAT SPA TOWNS of Europe

1. *Baden bei Wien*
2. *Spa*
3. *Františkovy Lázně*
4. *Karlovy Vary*
5. *Mariánské Lázně*
6. *Vichy*
7. *Bad Ems*
8. *Baden-Baden*
9. *Bad Kissingen*
10. *Montecatini Terme*
11. *City of Bath*



# Institute of Spa and Balneology

- Public research institution established by the Karlovy Vary Region in 2019.
- The institution aims to renew research in the field of spa and balneology in the Czech Republic.
- Research projects focus mainly on the objective effects of spa treatments on the human health, research into natural medicinal resources, and cultural, historical and socio-economic aspects of the spa industry.



# R&D

The unfavourable development of the spa industry in the Czech Republic, when for more than 30 years there was no scientific research base, led to the stagnation of the Czech spa industry. The effective transfer of R&D results from the research sphere to the application area and their subsequent use is of key importance for the development of spa and balneology.

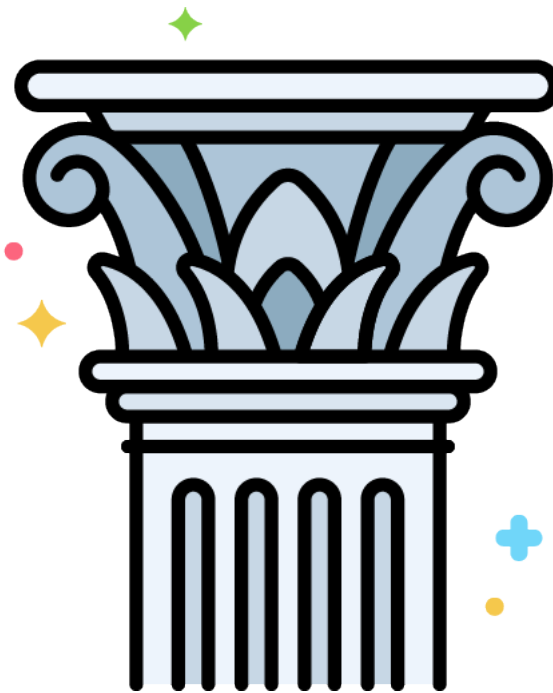
RESEARCH AND  
DEVELOPMENT



# Three pillars of ilab



Medical research



Environmental research



Social Economic research

# ilab – modern approach to medical research

- diseases prevention;
- personalized treatment based on patient demand;
- healthy diet and healthy life style;
- well-being;
- innovations, modern technologies;
- answering actual medical questions: a clinical study of the effects of inhaled hydrogen in **post-COVID patients** treated in a spa after severe pneumonia with hospitalization.



# ilab – modern approach to natural medicinal resources research

- spa therapeutic landscape;
- disintegrated humolites and their use in balneology (CZ Pat. No. 308971 );
- research on selected chemical parameters of natural medicinal resources;
- spa forest protection.





# ilab – modern approach to social economic aspects of spas research

- socio-economic surveys;
- spa´s patients/clients demands;
- general understanding of the role of spa in the whole health care system;
- health technology assessment (HTA).





Complex understanding of spa „environment“, effective transfer of R&D results from the research sphere to the application area and their subsequent use is of key importance for the development of spa and balneology.



ilab researches aim to develop the spa industry **in all fields**, from medicine to culture and history.



Close collaboration with regional institutions to contribute to the development of the whole region Karlovy Vary, and Czech – Bavaria collaborations:

- ✓ Spa and Balneology
- ✓ Tourism, sport and relax
- ✓ Cultural life



# Spa Research Center – strategic project of the Karlovy Vary region

- the main goal is to increase the quality, competitiveness and prestige of spas in the Karlovy Vary region.
- basic and applied research in the field of medical and biological sciences (objectification of the effects of spa medical rehabilitation treatment), environmental sciences (protection of natural healing resources and sustainable development of the spa landscape).
- a significant part of the project is also focused on social and historical sciences (mapping the historical development of spas, mapping the economy of spas, trends in spas in the world, focusing on the cultural heritage of spas).
- in cooperation with research organizations, universities, private and public sphere.





THANK YOU FOR YOUR ATTENTION

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