

Action profiles of Tibetan Formulas

Dr. Herbert Schwabl
h.schwabl@padma.ch

www.padma.ch



A photograph of a mountain path with colorful prayer flags and a stone wall. The scene is bright and sunny, with green trees and a clear blue sky. The prayer flags are in various colors including blue, yellow, red, green, and white. Some of the flags have text and images on them. The stone wall in the foreground has some white markings on it.

**Our goal:
to bridge
tradition - science**

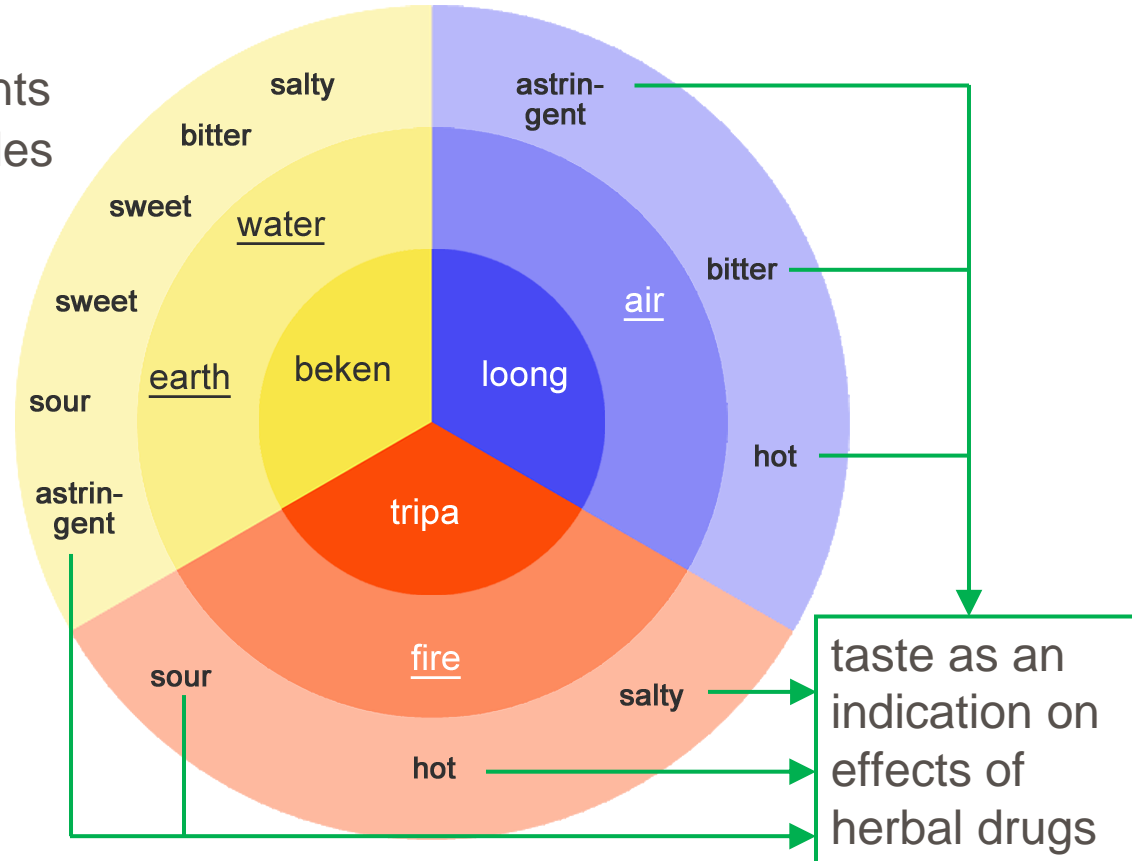
5 Elements

Earth – **Water** – **Fire** – **Air**
Space (Ether)



Principles of Tibetan Medicine

5 elements
3 principles
6 tastes



Space

taste as an indication on effects of herbal drugs

Tibetan formulas are **multi-component** mixtures

- 3 up to 50 and more different ingredients
- mainly plants and minerals



The image features a person in a meditative pose, split vertically into two color-coded halves: green on the left and blue on the right. The person is wearing a dark top and has their hands resting on their knees in a mudra. The background is a textured, slightly blurred pattern. Overlaid on this image is the text "what is the problem of modern science with Tibetan formulas?" in a bold, yellow, sans-serif font.

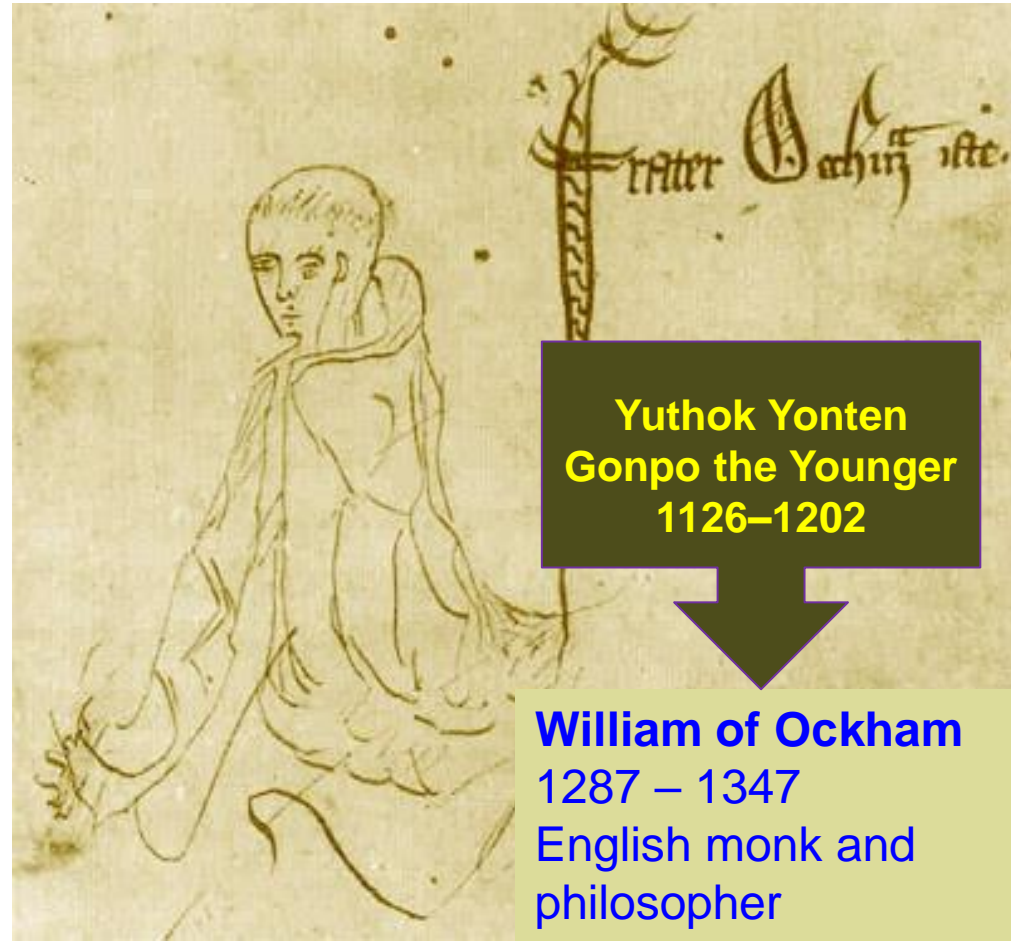
**what is the problem of
modern science with
Tibetan formulas?**

Modern science

pharmacology &
bio-medicine

Main principles

- Cause & effect
- Reductionism



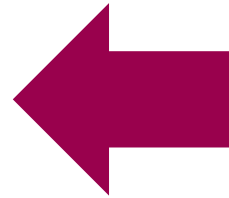
**Yuthok Yonten
Gonpo the Younger
1126–1202**

William of Ockham
1287 – 1347
English monk and
philosopher

This leads to «modern scientific» questions:

- what is the single cause?
- how to reduce complexity?

what is the active molecule?



«Modern» science report



Contents lists available at ScienceDirect

Food and Chemical Toxicology

journal homepage: www.elsevier.com/locate/foodchemtox



Composition, antimicrobial activity and *in vitro* cytotoxicity of essential oil from *Cinnamomum zeylanicum* Blume (*Lauraceae*)

Mehmet Unlu^a, Emel Ergene^b, Gulhan Vardar Unlu^a, Hulya Sivas Zeytinoglu^{b,*}, Nilufer Vural^c

^a Department of Microbiology, Faculty of Medicine, Cumhuriyet University, 58140 Sivas, Turkey

^b Molecular Biology Section, Department of Biology, Faculty of Sciences, Anadolu University, 26470 Eskişehir, Turkey

^c Science and Technology Research and Application Center, BITAUM, Ankara University, 06100 Ankara, Turkey

ARTICLE INFO

Article history:

Received 6 May 2010

Accepted 1 September 2010

Keywords:

Cinnamomum zeylanicum

Essential oil

Cytotoxicity

Apoptosis

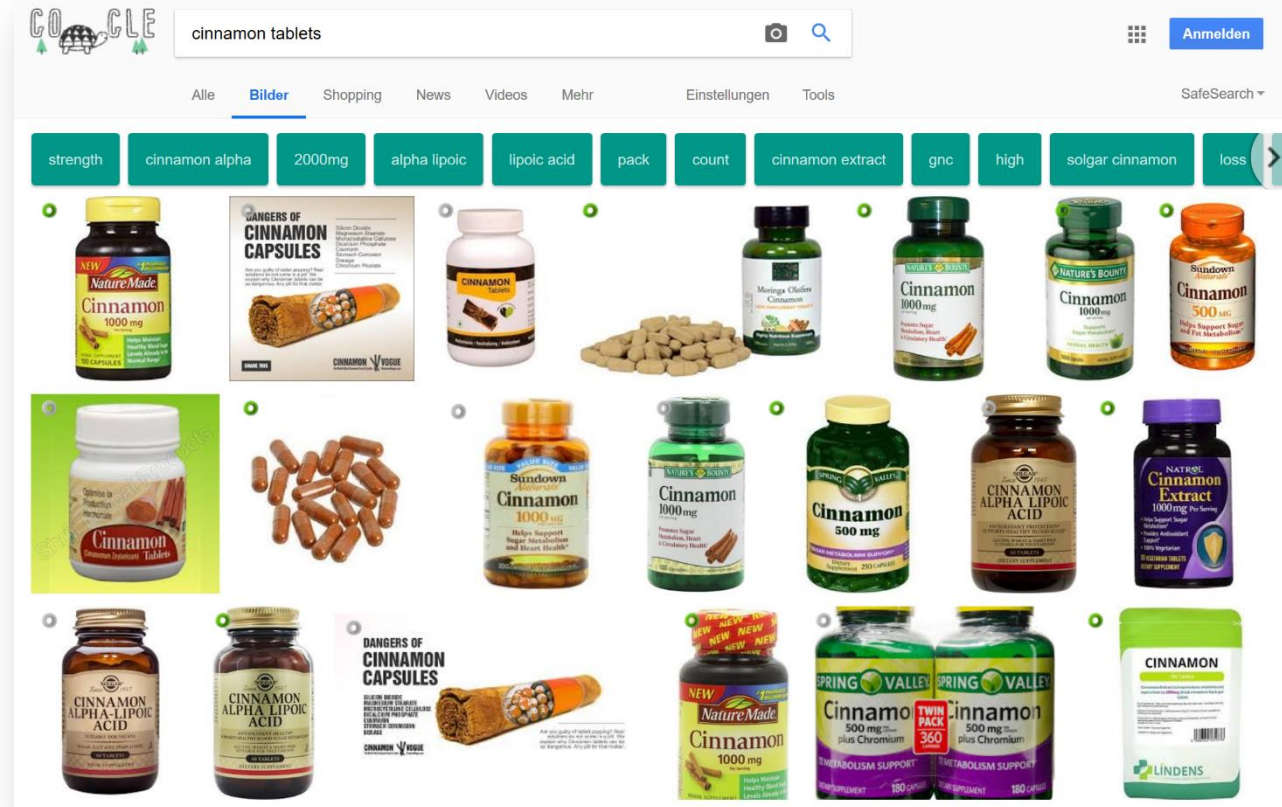
Antimicrobial activity

ABSTRACT

The essential oil from the bark of *Cinnamomum zeylanicum* Blume was analyzed and its chemical composition was determined. The analysis was carried out. Nine constituents representing 99.24% of the oil were identified. The major components in the oil were (E)-cinnamaldehyde (68.95%), benzaldehyde (9.94%), cinnamyl acetate (10.44%), and cinnamyl alcohol (7.44%). The antimicrobial activity of the oil was investigated in order to evaluate its potential use as a natural preservative against bacteria and 4 *Candida* species, using disc diffusion and minimum inhibitory concentration methods. The essential oil showed strong antimicrobial activity against all microorganisms tested. The cytotoxic and apoptotic effects of the essential oil on ras active (5RP7) and normal (F2408) fibroblasts were examined by MTT assay and acridine orange/ethidium bromide staining, respectively. The cytotoxicity of the oil was quite strong with IC50 values less than 20 µg/mL for both cell lines. 5RP7 cells were affected stronger than normal cells. Morphological observation of apoptotic cells indicated the induction of apoptosis at the high level of the oil, especially in 5RP7 cells. The present study showed the potential antimicrobial and anticarcinogenic properties of the essential oil of cinnamon bark, indicating the possibilities of its potential use in the formula of natural remedies for the topical treatment of infections and neoplasms.

shing tsha

«Modern» herbal product

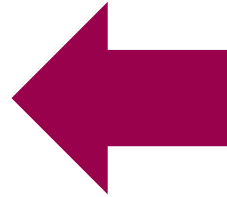


**how to bridge
Tibetan
ancient wisdom
with modern
science?**



Already one plant consists of many active molecules

Multi component



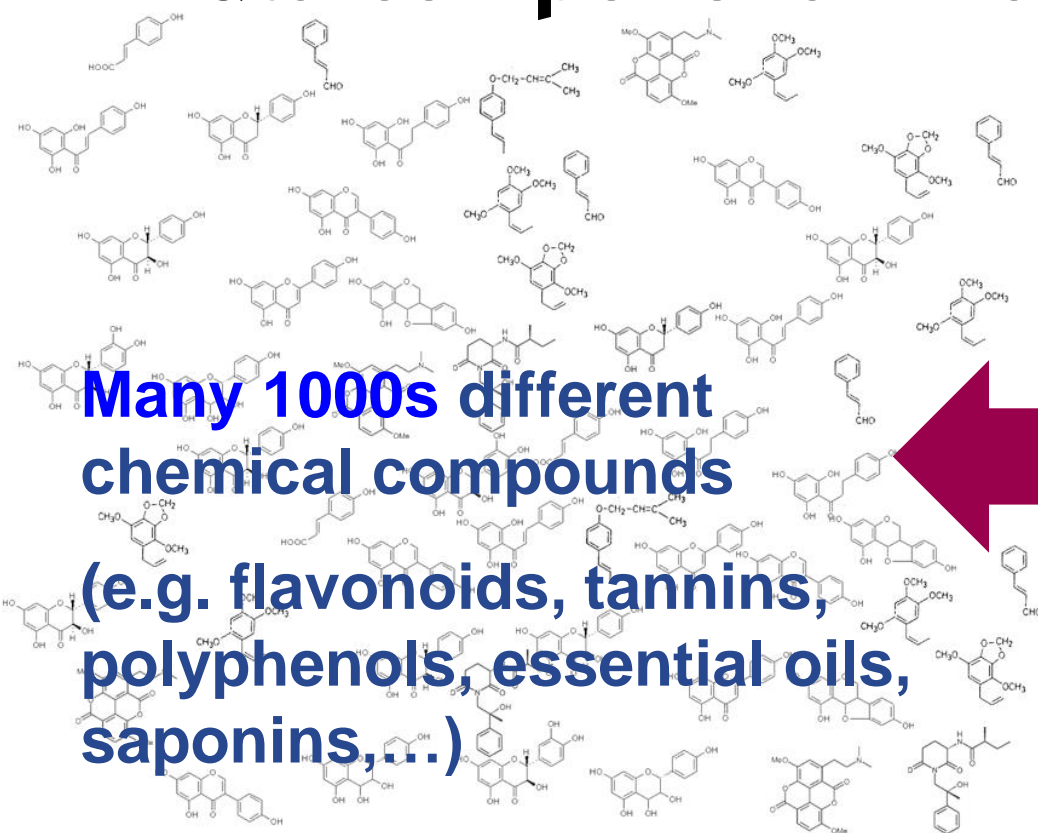
- **triterpenes** (arjunglucoside I, arjungenin, and the chebulosides I and II)
- **chebulin** = coumarin conjugated with gallic acids
- **phenolic compounds** (ellagic acid, 2,4-chebulyl-b-D-glucopyranose, chebulinic acid, gallic acid, ethyl gallate, punicalagin, terflavin A, terchebin, luteolin, and tannic acid)



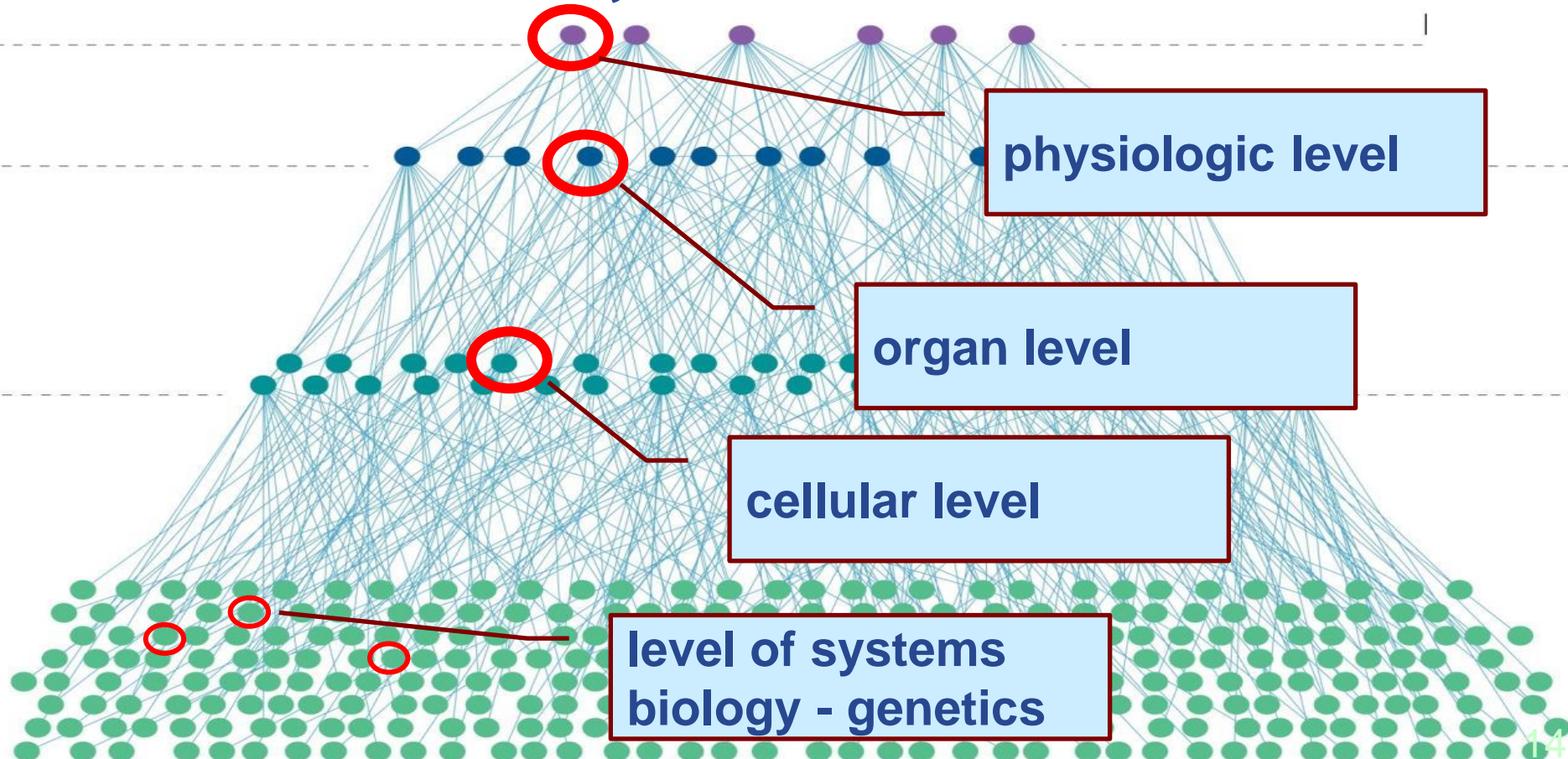
Multi component mixtures

Many 1000s different
chemical compounds

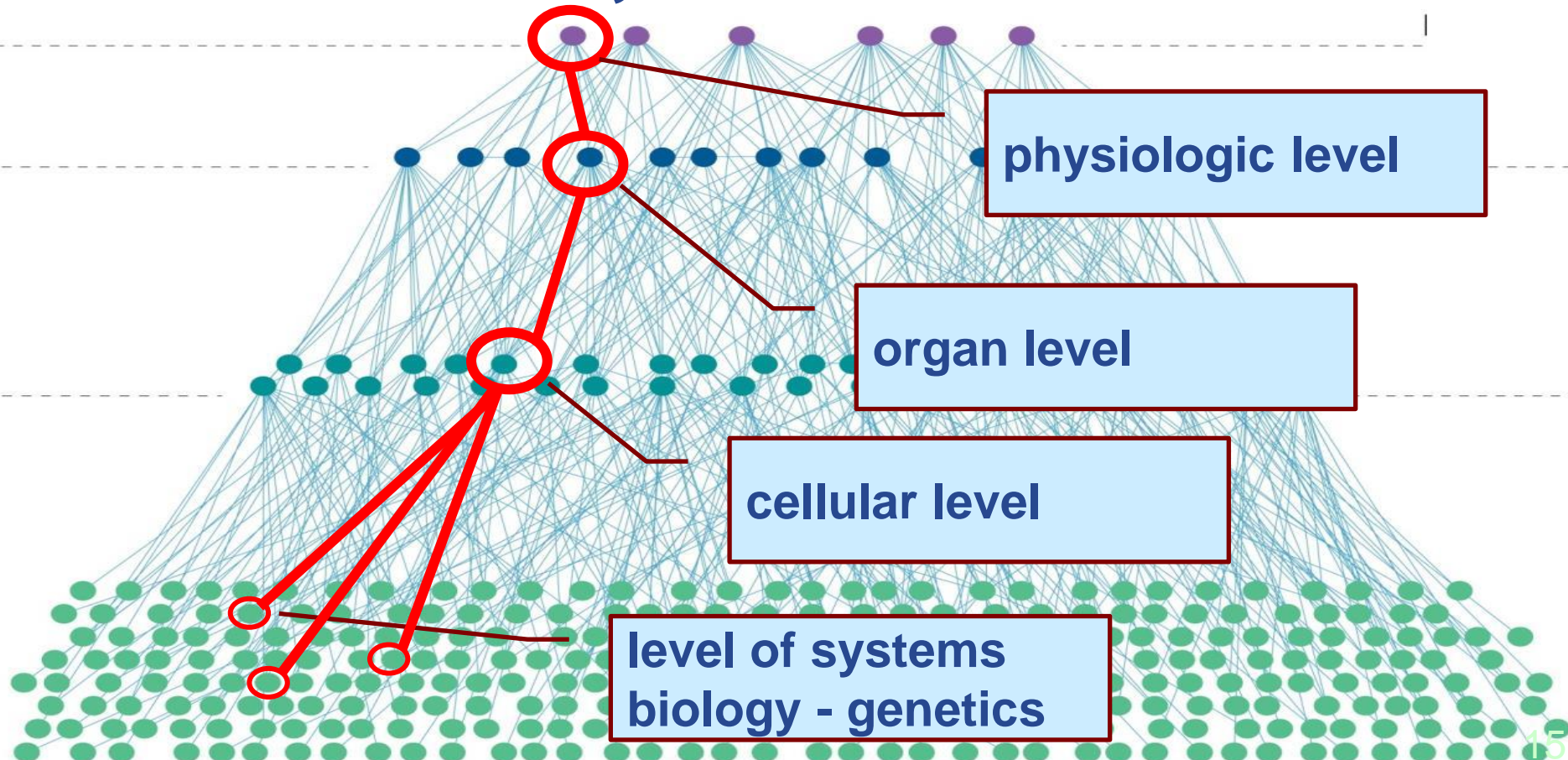
(e.g. flavonoids, tannins,
polyphenols, essential oils,
saponins,...)



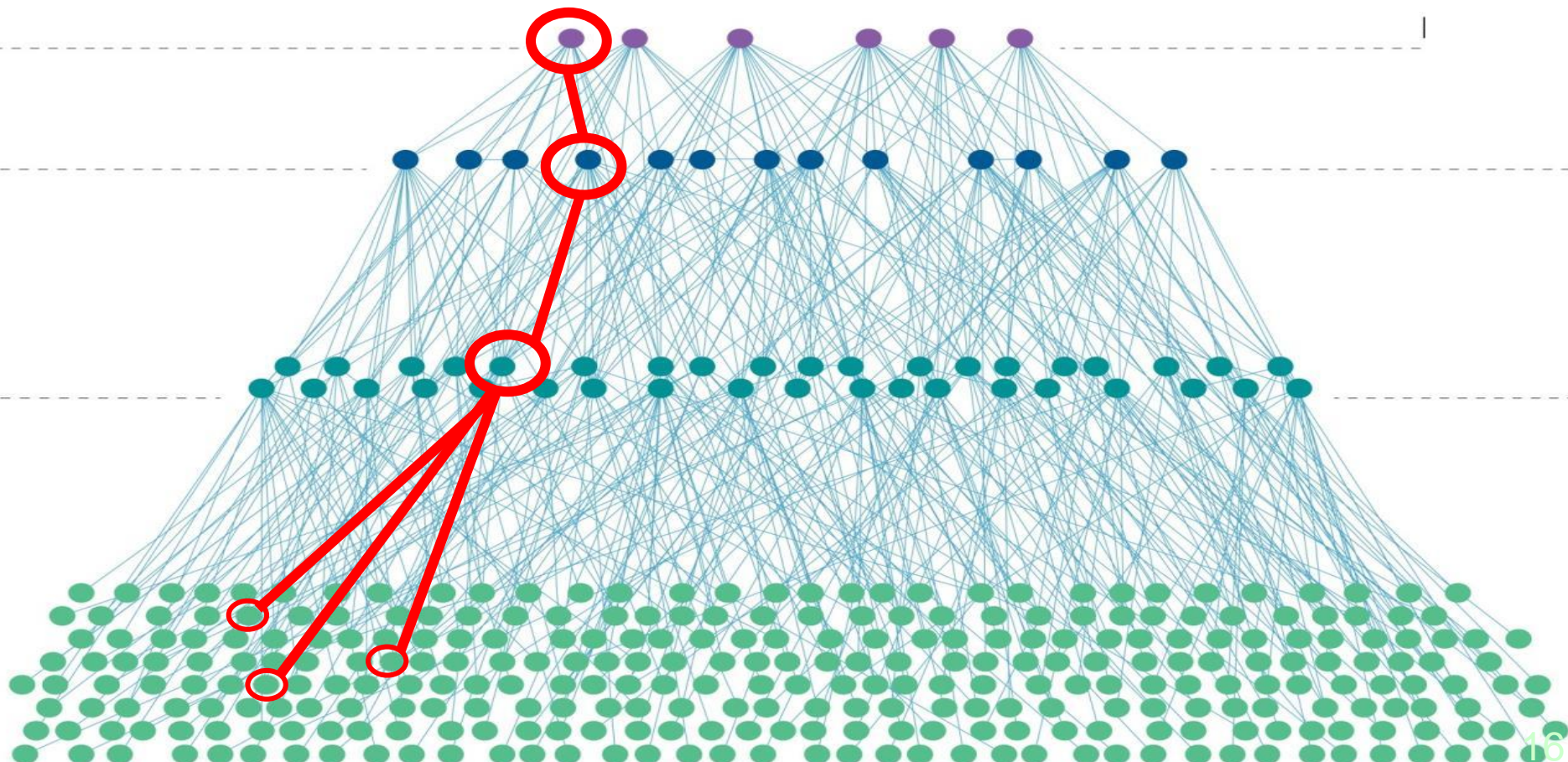
network of body functions



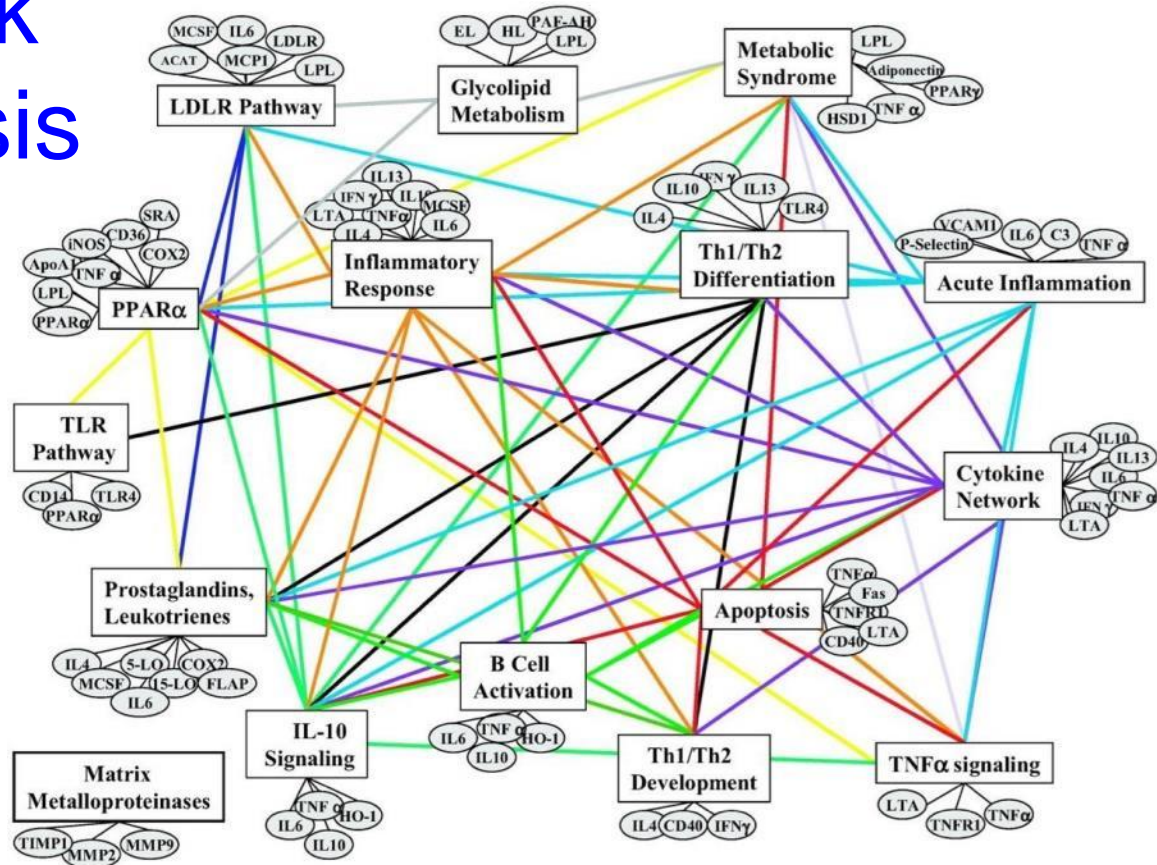
network of body functions



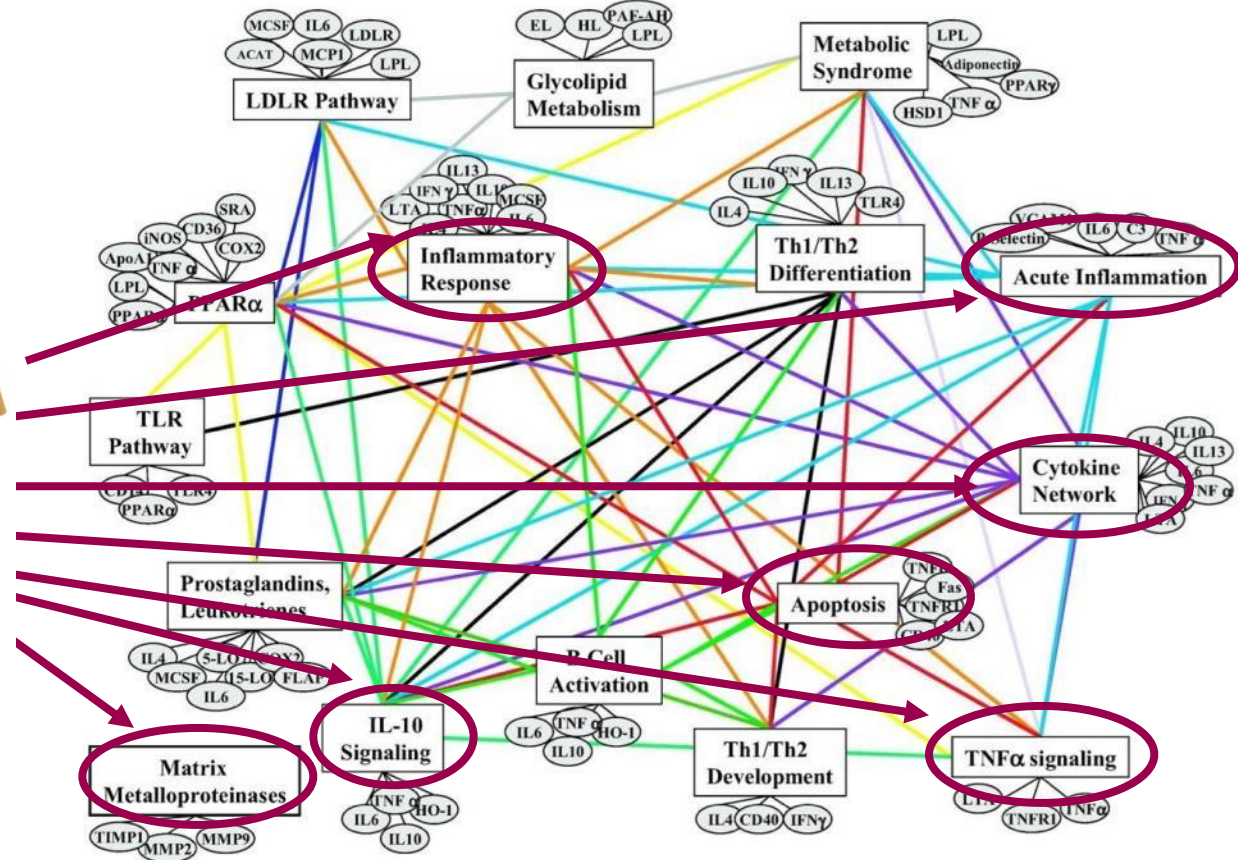
We should talk about networks!



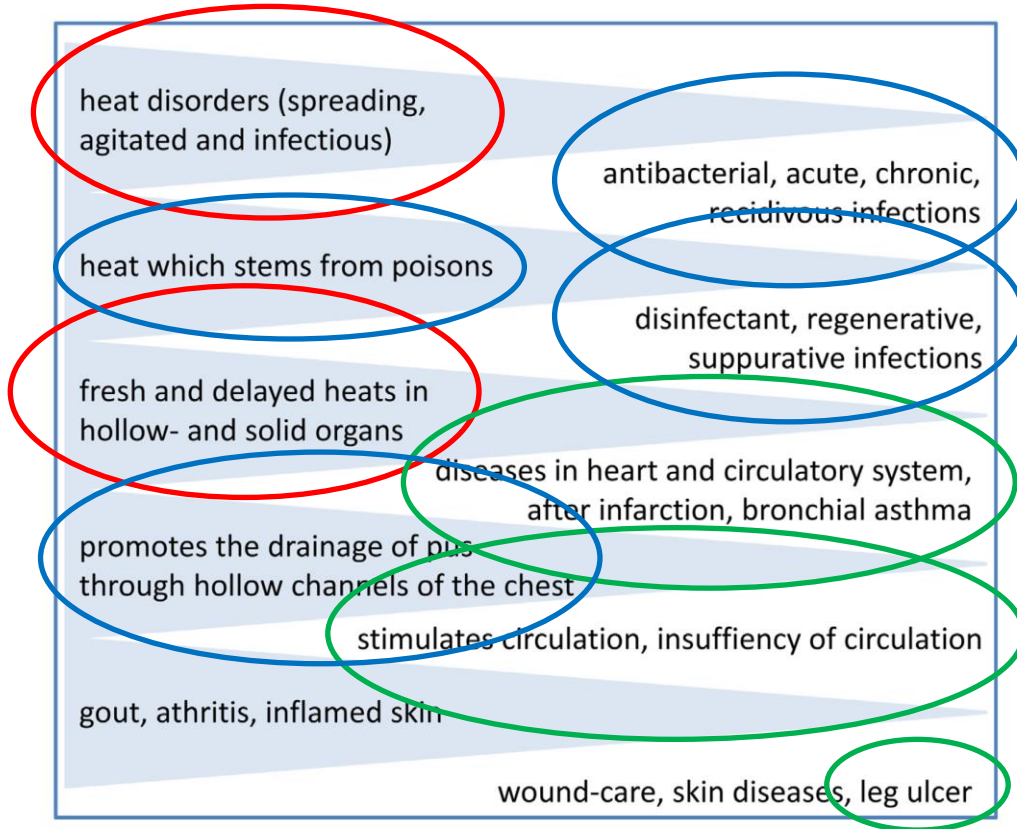
Example: Immune network of atherosclerosis



Padma 28: a network formula (Gabur 25)



Gabur: traditional vs modern

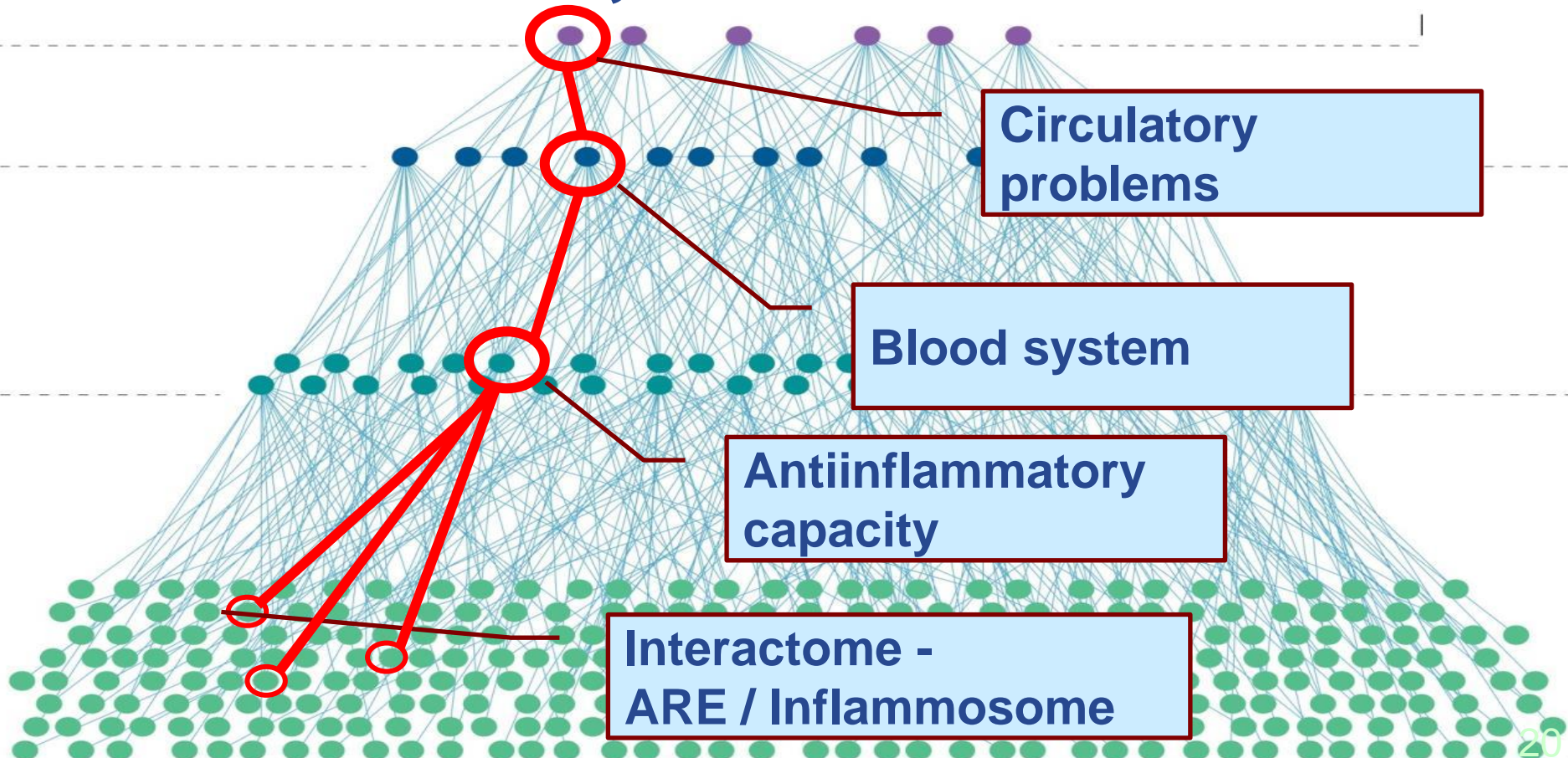


Silent inflammation
(anti-inflammatory)

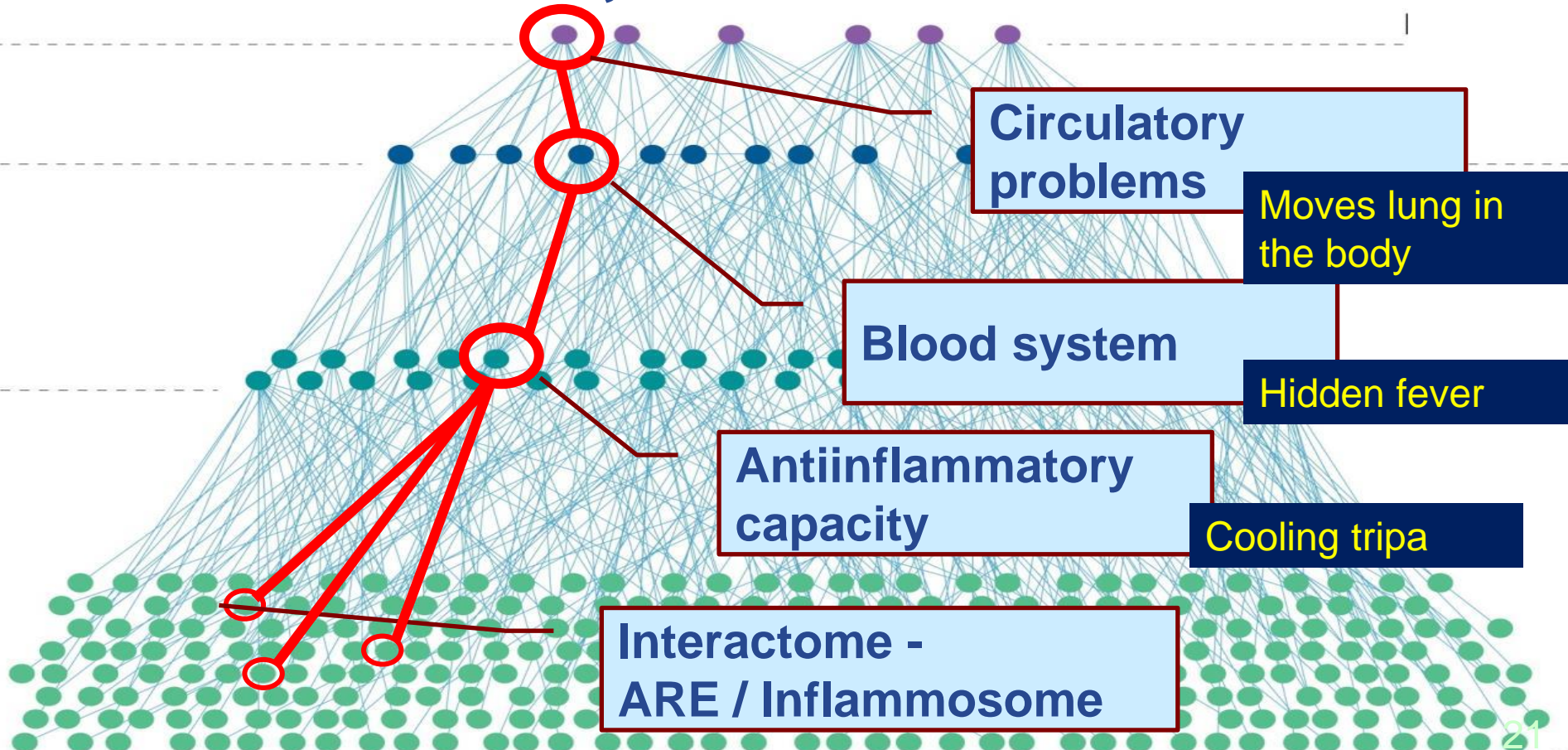
Strengthens
circulation

Supports immune
functions via
promotion of
microcirculation

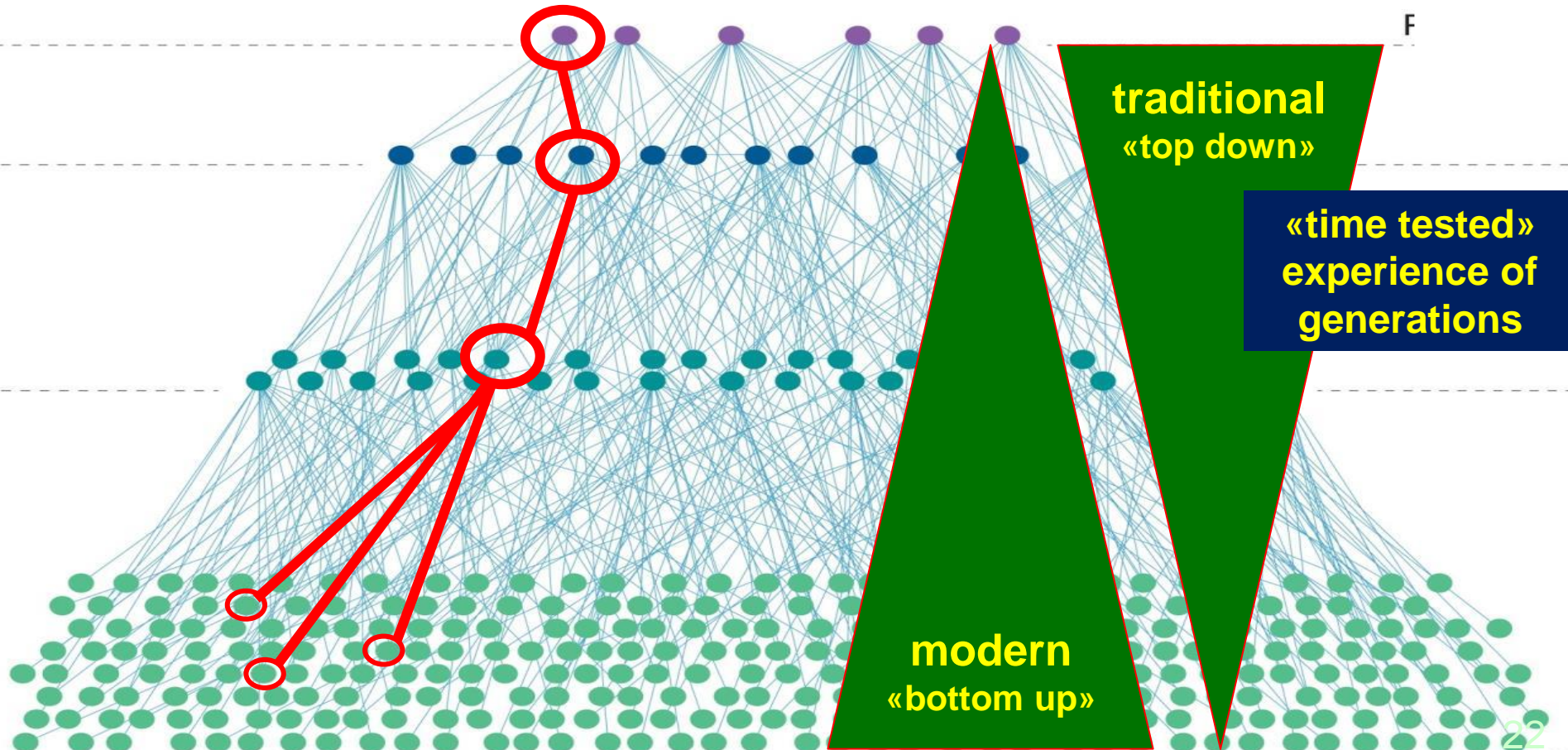
network of body functions



network of body functions



Modern AND traditional



**the
task for the
future**

**ancient wisdom
– modern
science**



the
task for the
future

ancient wisdom
– modern
science



Thank you !

Herbert Schwabl

h.schwabl@padma.ch

www.padma.ch

