



Food, Medicine and Philosophy in East and West - a PhD course

What determines what we eat? Science, culture or religion? How do people view the human body in health and disease? As a chemical machine or a spiritual, holistic entity? Widely different diet and health traditions are coming closer in the globalized world. The distinction between food and medicine is unclear, and both relates to culture, philosophy and religion. Dietary habits and human health may be determined by more than product availability, technology and natural science. Food and medicine differ between East and West in a mixture of natural, social and human sciences.

- Learn research methods by looking across disciplines, from East to West!

Food &
medicine
moving
closer?

-and closer to
philosophy?

Food Culture / Mental Health
Traditional Chinese Medicine
Food & Body in Religion

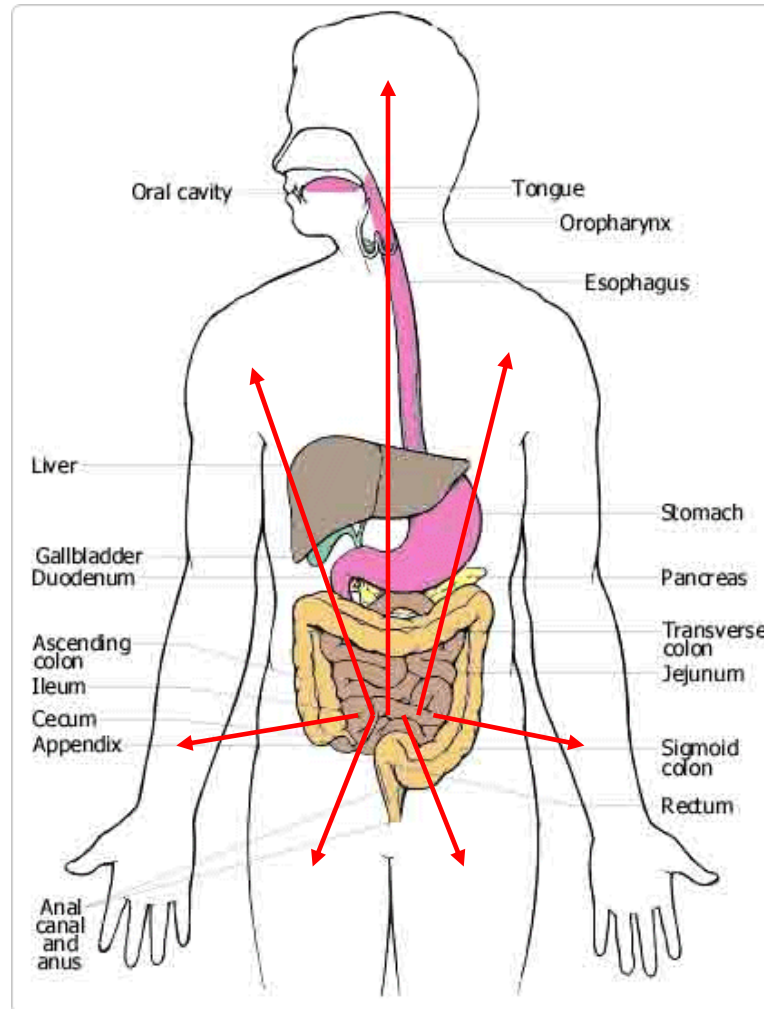
Food

Medicine

Functional Foods
Animal/Human Nutrition

Nutrition: Man's most intimate contact with surrounding nature

O₂



Food = experience?

(- Not only fuel for chemical machine, advertisement in a Danish Newspaper Nov. 2007)

Afternoon tea.

Food and meals are becoming part of the "experientel living"
Tea is a good example of food that has a role beyond nutrition

Tea functional food?

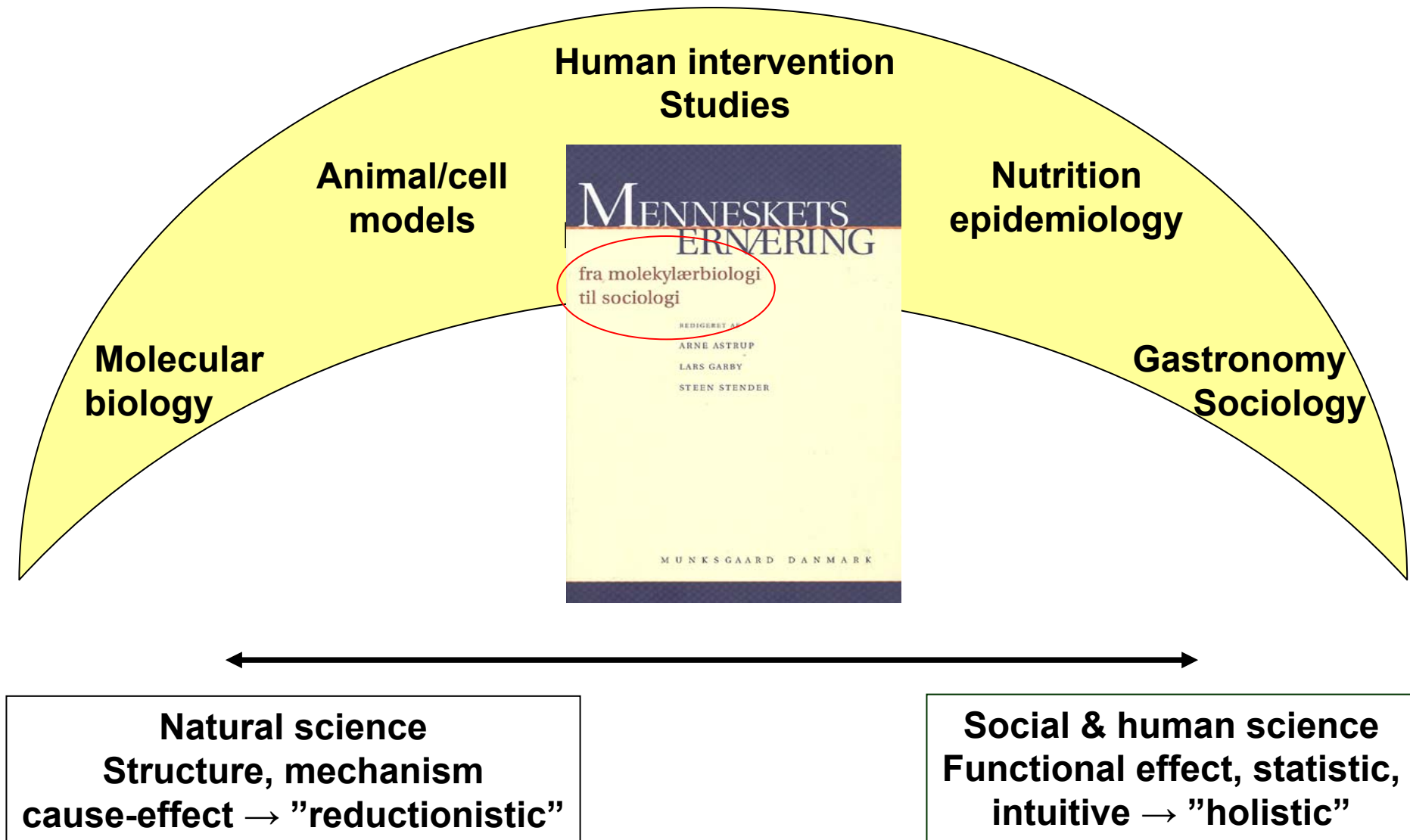
Tea for go(o)d health?

Tea meditation?

Adventure om dagen. Luksus resten af døgnet.

Bestil din rejse på topas.dk

Human Food and Nutrition: Natural, social and human science



"Food, Medicine and Philosophy in East and West"

3-week international Scandinavian-Chinese PhD course:

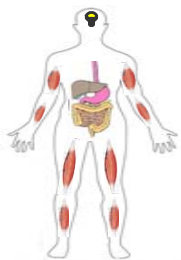
Improved understanding of:

- Diet choices in East & West
- Globalization of diet & health
- Basic science epistemology in food and medicine fields
- Science synergy & creativity
- East-West cultural diversity



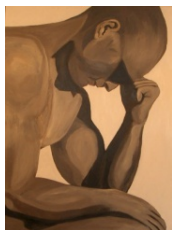
Food

Researchers:
Food science
Food technology
Human nutrition
Agriculture



Medicine

Pharmacy
Medicine
Health/Exercise



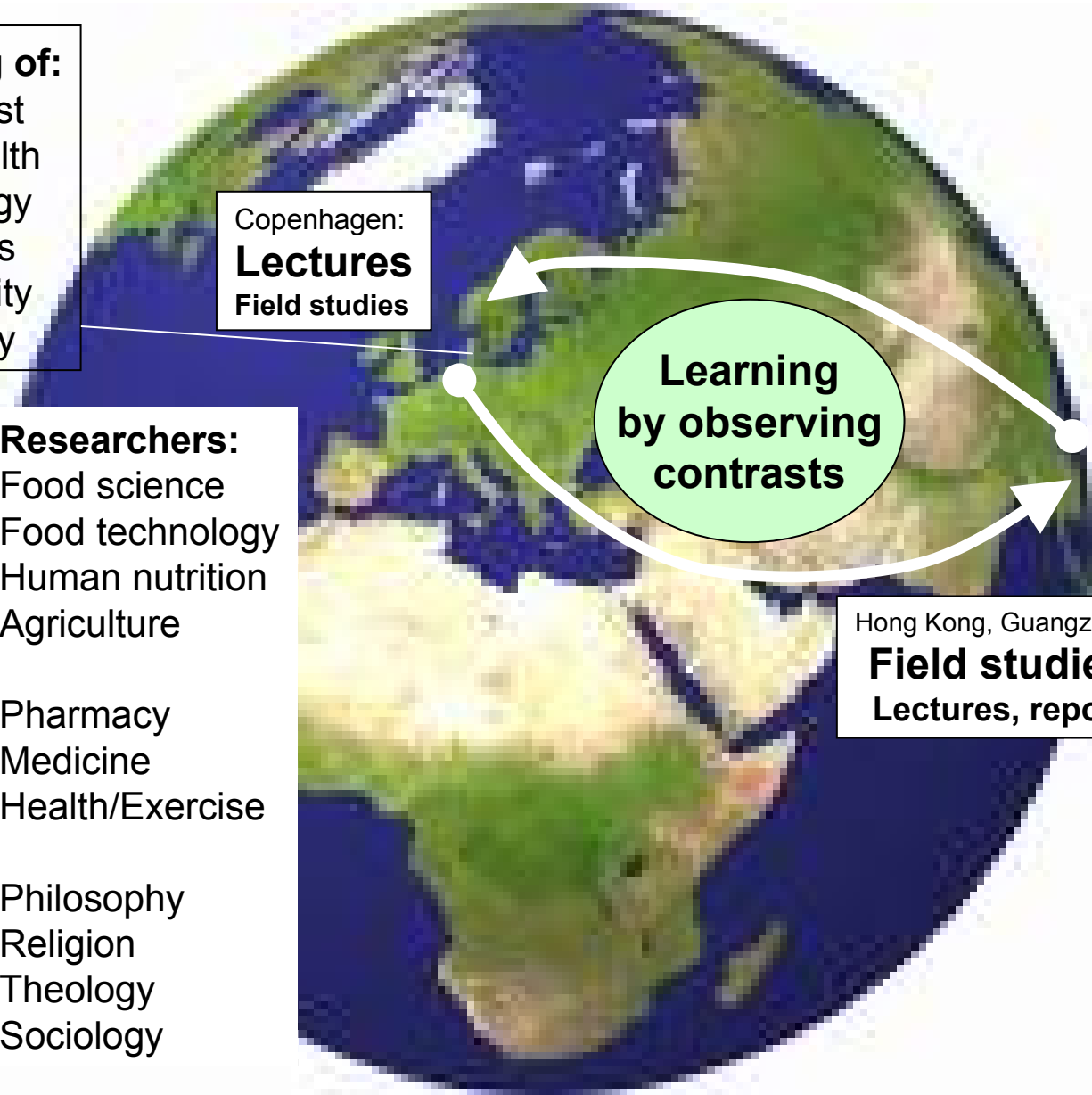
Philosophy

Philosophy
Religion
Theology
Sociology

Copenhagen:
Lectures
Field studies

Learning
by observing
contrasts

Hong Kong, Guangzhou:
Field studies
Lectures, report



Lecture overview

- Presentation of coordinators, lecturers
- Presentation of participants
- Presentation of course program
- Course report
- Introduction to course theme:
Food, Medicine & Philosophy

| Name: | Affiliation: | Email: | EC TS: |
|----------------------------------|--|---------------------------|-------------------|
| Charlotte Andersen | Dept. Vet. Pathobiology, Uni. Copenhagen. | chara@life.ku.dk | 6 |
| Shuyu Wu | Unit Antimicrobial Resistance, DTU. | wshuy@food.dtu.dk | 6 |
| Janice Marie Sorensen | Dept. Human Nutrition, Uni. Copenhagen | janice@life.ku.dk | 6 |
| Yan Li | Dept. Nutrition, School of Public Health, Sun Yat-Sen University | liyanwb@163.com | 6 |
| Faiza Saeed | MAPP centre, Uni. Aarhus | faizas@asb.dk | 6 |
| Mette Holse | Dept. Food Science, Uni. Copenhagen | mhol@life.ku.dk | 6 |
| Morten Arendt Rasmussen | Dept. Food Science, Uni. Copenhagen | mortenr@life.ku.dk | 6 |
| Marloes Anna Adriana Schepens | NIZO | Marloes.Schepens@nizo.nl | 6 |
| Yu Qin | Dept. Nutrition, School of Public Health, Sun Yat-Sen University | Yuer_forever@hotmail.com | 6 |
| Zhang Zhe | Philosophy department of Sun Yat-Sen University | hanszz@163.com | 6 |
| Andreas Vegge | Section of Biomedicine, Uni. Copenhagen | avegge@gmail.com | 6 |
| Tsoi Fong Kong, Vincent | School of Biology, University of Hong Kong | fongkongtsoi@yahoo.com.hk | 4 |
| Lana Tankosa Nikolic | Faculty of Theology, Uni. Copenhagen | tankosa@gmail.com | 4 |
| Hanna Schösler | Instituut voor Milieuvraagstukken, Free University | Hanna.schosler@ivm.vu.nl | 6 |

Is the course relevant for Western conditions?

One PhD student after the 2007 course (adapted):

”I was struck by the fact that the conflict between TCM (Traditional Chinese Medicine) and our Western natural science is similar to the conflicts between a restaurant chef and me as a food scientist.

The chef works by experience and historical knowledge, is concerned about results - not mechanisms. I work systematically by molecular gastronomy to obtain better taste. However, it will take forever to prove everything. The encounter between the food scientist and the chef is a culture chock – just like the meeting between a TCM doctor and a Western scientist. In molecular gastronomy and natural science, we should relate to ”knowledge” of the chef, challenge and interact with this ”knowledge”.

Course lecturers in Hong Kong or Copenhagen (alphabetical, topics indicated):

- Bolund, Lars (LB), Prof., dr.med. genetics, Univ. Aarhus and Beijing Genome Institute at Shenzhen, (“wellness genes” and mechanisms of biological maintenance), bolund@humgen.au.dk.
- Bruun, Ole (OB), Ass. Prof., PhD ethnology, Roskilde University Centre (RUC), (cultural and religious trends in China related to food and nature, Chinese Fengshui), obruun@ruc.dk
- Chan, Hiutung (HC), PhD theology, Bridge & Dialogue, Tao Fong Shan Christian Crt., Hong Kong, (Taoist/Buddhist/Christian philosophies regarding food, nutrition, health), hiutung@tfsec.org
- Chan, K.F. Keith (KC), Research Fellow, PhD Philosophy, Institute of Sino-Christian Studies (Nature philosophy in Chinese religions and Christianity), keith@iscs.org.hk
- Chen, Yilu (CY), President, PhD Theology, Guangdong Union Theological Seminary (Nature and food in Chinese and Christian belief traditions), elupastor@sina.com.cn
- Christensen, Lars Porskjær (LPC), Prof., PhD, Dept. Chemistry/Biotechn., Univ. Southern Denmark, (Traditional Chinese Medicine and Medicated Diets in the West), lpc@kbm.sdu.dk
- Dragsted, Lars (LD), Professor, PhD, nutrigenomics and biomedicine, Dept. Human Nutrition, Univ. Copenhagen (functional foods and body health), ldra@life.ku.dk.
- Gregersen, Niels Henrik (NHG), Prof., PhD theology, University of Copenhagen, (synergies and conflicts between natural science and religion/theology), nhg@teol.ku.dk
- Holm, Lotte (LH), Prof., PhD nutrition sociology, Dept. Human Nutrition, Univ. Copenhagen, (nutritional sociology and culture, choice paradigms, sociology of obesity), loho@life.ku.dk
- Hsiao, W.-L. Wendy (HW), Ass. Dean, Prof., School of Chinese Medicine, Hong Kong Baptist University (Traditional Chinese Medicine in Hong Kong), bowhsiao@hkbu.edu.hk
- Hviidt, Niels Christian (NCH), Ass. Prof., PhD theology, Univ. Southern Denmark, (miracles, faith, theology, meal and medicine in East and West), nchvidt@health.sdu.dk
- Jørgensen, Jonas (JJ), Assistant Professor, PhD theology, Univ. Copenhagen, (nature and religion in Asian syncretistic tradition), jaj@teol.ku.dk
- Kristiansen, Karsten (KK), Professor, DSc, molecular biology, Univ. Southwestern Denmark/ Beijing Genome Institute, (molecular basis of food bioactive effects), kak@bmb.sdu.dk.

Lai, Jim (JL), Pilgrims Hall Administrator at Tao Fong Shan Service Unit (local food traditions in Hong Kong, the role of food in retreat), jimlai@tfssu.org.

Lemon, John (JLE), PhD divinity, Bridge & Dialogue Division, Tao Fong Shan Christian Centre, Hong Kong (dialogue between religions), lemond@tfsc.org

Li, Shen (SL), Cand.scient., Chinese restaurant manager, Fredensborg, Denmark, (Chinese cooking traditions in East and West), lishen2@hotmail.com

Ma Jing (MJ), MD, MPH, Prof. Nutrition, Sun Yat-sen Univ., Guangzhou (GZ), (Food culture in China), majing@mail.sysu.edu.cn

Nielsen, Klaus Bo (KBN), Academic worker, Dept. Religious Studies, Univ. Aarhus. (Classical Chinese philosophy and nature view), kbn@teo.au.dk

Rasmussen, Lars Holm (LHR), PhD, Scientific secretary, Centre for Advanced Food Studies (course coordination), lhr@life.ku.dk

Sandøe, Peter (PS), Professor, PhD Ethics/Philosophy, University of Copenhagen, (history and philosophy of Western natural science and its associated ethics), pes@life.ku.dk

Sangild, Per T (PTS), Professor, DSc nutrition, Univ. Copenhagen, (East-West understanding and dialogue in nutrition, health and religion fields), psa@life.ku.dk

Wan, Jennifer M (JW), Ass. Professor, PhD nutrition, University of Hong Kong, (Western nutrition & medicine, Chinese traditional medicine), jmfwan@hkusua.hku.hk

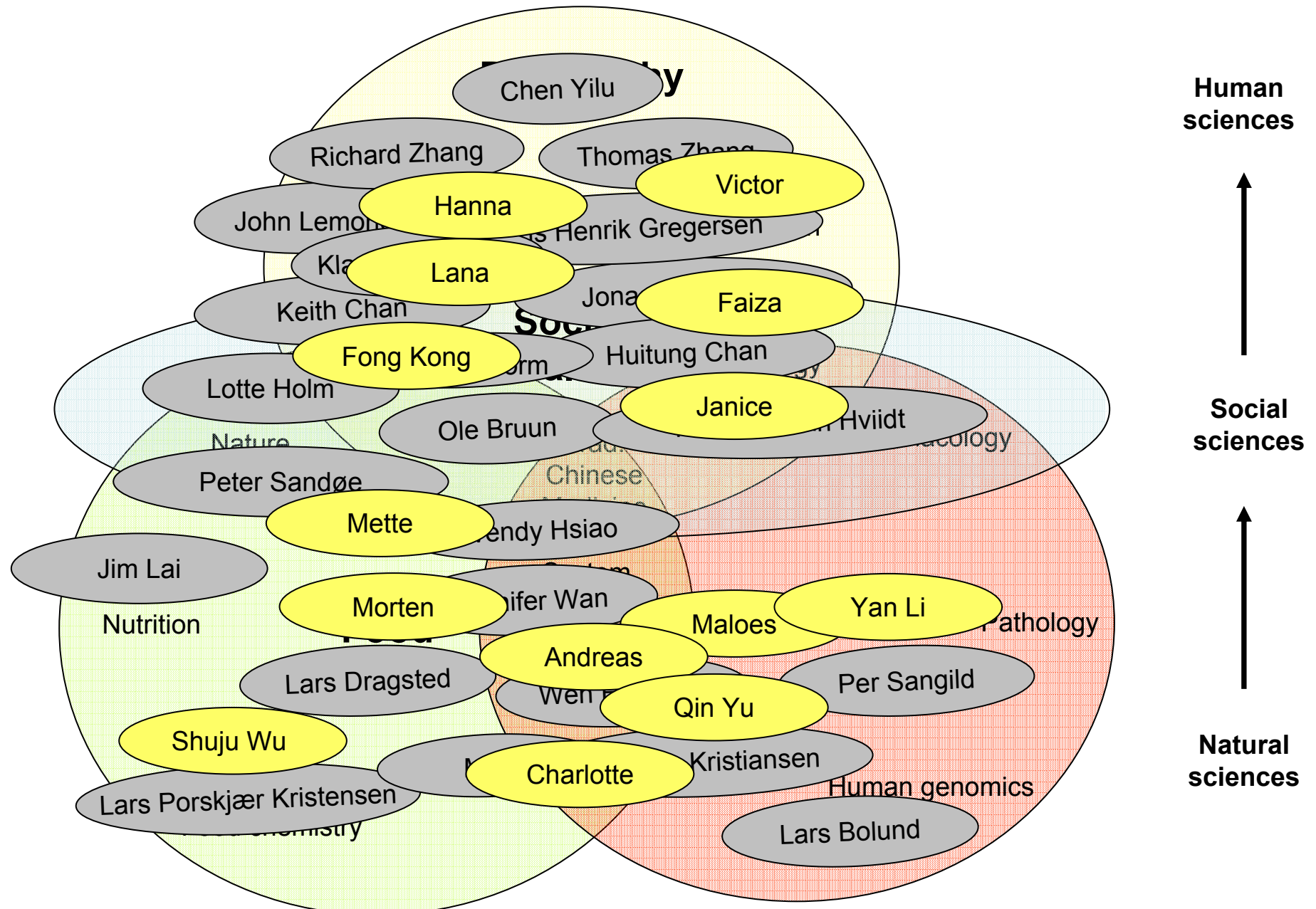
Wen, Hua Ling (WHL), Dean, Prof., PhD nutrition, Sun Yat-sen Univ., Guangzhou (GZ), (trends in the functional food-medicine area in China), lingwh@mail.sysu.edu.cn

Worm, Verner (VW), Prof. of Chinese Business & Development, Asia Research Center, CBS, DK (trends in Chinese business understanding and philosophy), vw.int@cbs.dk

Zhang, Richard X.Y. (RZ), Ass. Director, Department of Philosophy, Sun Yat-sen University, Guangzhou (philosophy in modern China, Christianity), xyz504a@yahoo.com.cn

Zhang, Thomas (TW), Ass. Prof., PhD Philosophy, Sun Yat-sen University, Guangzhou, (philosophies in modern China – relations to food and health?), zhangxianzsu@163.com

Food, medicine and philosophy – some main study fields:



Lecture overview

- Presentation of coordinators
- Presentation of participants
- Presentation of course program
- Course report
- Introduction to course theme:
Food, Medicine & Philosophy

Course program (Copenhagen)

Lectures (50 min incl. discussions/group work) at Faculty of LIFE Sciences, Univ. of Copenhagen:

| Day | Time | Topic | Person in charge |
|--------------|-------|---|------------------|
| Thu 13.11 | 9-10 | Practical course introduction - participants, lecturers, expectations, report | PTS / JW / JJ |
| | 10-11 | Scientific introduction - what has food to do with medicine - and with philosophy? | PTS |
| | 11-12 | Cultural/social determinants of food, meal patterns and human health in West -1 | LH |
| | 13-14 | Cultural/social determinants of food, meal patterns and human health in West -2 | LH |
| | 14-15 | Scientific knowledge about food bioactives and health in West and in China - 1 | KK |
| | 15-16 | Scientific knowledge about food bioactives and health in West and in China - 2 | KK |
| Fri 14.11 | 9-10 | Traditional Chinese Medicine in a Western science context | JW |
| | 10-11 | Traditional Chinese Medicine – scientific facts or fiction? | JW |
| | 11-12 | Traditional and contemporary views towards nature, food and body in China - 1 | OB |
| | 13-14 | Traditional and contemporary views towards nature, food and body in China - 2 | OB |
| | 14-15 | Nature and religion in Asian syncretistic traditions - 1 | JJ |
| | 15-16 | Nature and religion in Asian syncretistic traditions – 2 | JJ |
| Sat 15.11 | 15-20 | Field study: What is characteristic of Danish food markets, meals and health views? | LHR /JW/PTS |
| Sun 16.11 | | Free social interactions among Danish and international participants | |
| Mon 17.11 | 9-10 | Food, medicine and philosophy in East and West – follow up | PTS / JW |
| | 10-11 | Chinese personality and understanding of networking in a global world - 1 | VW |
| | 11-12 | Chinese personality and understanding of networking in a global world - 2 | VW |
| | 13-14 | The chemistry of food bioactives in East and West - 1 | LPC |
| | 14-15 | The chemistry of food bioactives in East and West - 2 | LPC |
| | 15-16 | Chinese philosophy and traditional views towards Nature - 1 | KBN |
| | 16-17 | Chinese philosophy and traditional views towards Nature - 2 | KBN |

Course program (Copenhagen)

| | | | |
|--------------|-------|--|----------------|
| Tue 18.11 | 9-10 | Food, medicine and philosophy in East and West – follow up | PTS / JW |
| | 10-11 | History and philosophy of natural science and associated ethics - 1 | PS |
| | 11-12 | History and philosophy of natural science and associated ethics - 2 | PS |
| | 13-14 | Functional foods, health science and nutrigenomics -1 | LD |
| | 14-15 | Functional foods, health science and nutrigenomics -2 | LD |
| | 15-17 | Presentation of headlines of proposed reports by each student | PTS / JJ |
| Wed 19.11 | 9-10 | Introduction to Tao Fong Shan and the Hong Kong/Guangzhou program activities | PTS |
| | 10-11 | Natural science and religion: historical conflicts and synergies - 1 | NHG |
| | 11-12 | Natural science and religion: historical conflicts and synergies - 2 | NHG |
| | 13-14 | Naturalistic, existential and religious aspects of health and disease - 1 | NCH |
| | 14-15 | Naturalistic, existential and religious aspects of health and disease - 2 | NCH |
| | 15-17 | Report work - defining key questions to be answered in written report | PTS / JJ |
| Thu 20.11 | 13-20 | Departure for Hong Kong | LHR / PTS |
| | | | |
| Mon 1.12 | | Return to Copenhagen (except Chinese participants) | |
| Tue 2.12 | | Individual course report work | |
| Wed 3.12 | 12 | Delivery of course report via e-mail | PTS / JJ / JMF |
| Fri 5.12 | 8-12 | Presentation of course reports (20 min incl. discussion). | PTS / JJ |

Course program (Hong Kong – Guangzhou)

| Day | Time | Topic | Person in charge: |
|--------------|---|--|---|
| 21.11 Fri | 12-19 19 20-21 | Arrival in Hong Kong Evening meal at Tao Fong Shan (TFS) Welcome introduction at Tao Fong Shan | Independent HC / JL HC |
| Sat 22.11 | 9-11 11-12 13-14 14-15 15-16 17-22 | Food, body and philosophy in Chinese tradition -1 Nature philosophy in Christianity, Buddhism and Confucianism Guided walking introduction to Tao Fong Shan and Hong Kong surroundings Visit to 10000 Buddha Monastery – pragmatic Chinese religion, food relations? Visit to local cemeteries in Shatin – any role of food and medicine for the dead? Visit to Mong Kok food and shopping markets | HC KC PTS PTS PTS PTS |
| Sun 23.11 | 9-10 10-10½ 10½-12 12 12½ 14-16 17-18 | Introduction to food and nature in religious traditions What relevance has food and body for a retreat centre in Hong Kong? Tai Wai food/medicine markets - what is different between East and West? Depart for Fung Ying Seen Koon Daoist centre. What is role of cuisine/food? Vegetarian meal at Fung Ying Seen Koon Daoist centre. Demonstration/lecture by local TCM doctors at Fung Ying Seen Koon Temple Return to Tao Fong Shan, free evening. | PTS JL JL PTS HC HC/TCM |
| Mon 24.11 | 8½ 9-12 13 14-15 15-16 16-17 17-18 18-20 | Dept. for study visit to Hong Kong Baptist Univ., School of Chinese Medicine Lectures, discussions, site visit and TCM museum visit at HKBU Arrival Dept. Nutrition, University of Hong Kong (HKU), lunch in St.Union Introductions, undergraduate/graduate/postgraduate programs, Copenhagen/HK TCM and functional foods in East and West -1 TCM and functional foods in East and West -2 Round table or small group discussions on nutrition-health in East and West Evening gathering HKU staff members and students | PTS HW PTS/JW JW JW/others JW/others JW/PTS JW |
| Tue 25.11 | 9-10 10-11 12½ 14 14½ 17 21 | Food, Medicine and Philosophy – midway review, what have we learned? Food, body and philosophy in Chinese tradition -2 Departure for Shenzhen and Guangzhou, Mainland China Shenzhen, HuaDa Yan Tian area. Beijing Genomics Institute. "Wellness" genes and mechanisms of biological maintenance – science & Dao? Local eating at Beijing Genomics Institute, Shenzhen. Arrival in Guangzhou | PTS HC HC LB LB LB HC |

Course program (Hong Kong – Guangzhou)

| | | | |
|---------------|--|---|-----------|
| Wed 26.11 | 7½-9 | Breakfast and briefing time | HC |
| | 9 | Dept for Sun Yat-sen University, School of Public Health, North Campus | MJ |
| | 9½-10½ | Study visit to 1st affiliated university hospital – Western medicine in the East? | MJ |
| | 10½-12 | Food cultures in Southern China (lectures) | MJ |
| | 12-13 | Lunch | HC |
| | 13-16 | Guangzhou Hospital for Traditional Chinese Medicine - difference from West? | HC |
| | 19-21 | Dinner in West Chinese style (Sichuan) | HC |
| Thur 27.11 | 7½-9 | Breakfast and briefing time | PTS/HC |
| | 9 | Dept. for Sun Yat-sen University, Dept. Philosophy, South Campus | HC |
| | 9½-12 | Chinese food and medicine in traditional and contemporary philosophy (lecture) | TZ / RZ |
| | 12 | Lunch at South Campus | TZ/ RZ |
| | 13 | Departure for Guang Xiao Church | HC |
| | 13½-15 | Food, medicine and nature in Christianity - conflicts with Chinese philosophy? | CY |
| | 15-16 | Introduction to ancient Buddhist temple – food & medicine in Buddhism? | HC/monks |
| 16-18 | Dinner at vegetarian restaurant, Buddhist temple | HC/monks | |
| 18-22 | Free evening in Guangzhou | | |
| Fri 28.11 | 7½-9½ | Breakfast + briefing time - Visitation to the hotel kitchen | PSA / HC |
| | 9½-11½ | Ching Ping Herbs and Food Market , one of the biggest herbal markets in China | HC |
| | 12-13 | Herbal restaurant meal | HC |
| | 13-15 | Visiting Beijing Road Market | HC |
| | 15 | Departure for return to Tao Fong Shan | HC |
| Sat 29.12 | 9-12 | Wong Tai Sin temple - a Hong Kong traditional mix of food, health, religion? | PTS |
| | 12-21 | Cheung Chao – seafood island life outside Hong Kong | PTS |
| Sun 30.11 | 9-10½ | Chinese Tea meditation – what has food and nature to do with meditation? | JLE |
| | 10½-12 | Seminar on course report outlines, each student 10 min | PTS/HC |
| | 12-16 | Optional: Trekking to Needle Hill or Wu Kai Shi temple/Heritage Museum | PTS |
| | 20 | Departure for airport and Copenhagen | LHR / PTS |

Saturday program - Copenhagen

- 1) Visitation to Grøntorvet (Israels Plads) – 10.00 morning!
- 2) Visitation to Health Food Shop (Israels Plads)
- 3) Exhibition "Bodies" (H.C. Andersens Slottet (Rådhuspladsen)
H.C. Andersens Boulevard 22)



Report and exam:

General course outline:

The course consists of two parts at two locations: 1) Lectures and report work at Faculty of Life Sciences (LIFE), University of Copenhagen and 2) field studies in Hong Kong and Guangzhou, China. The course consists of a series of preparatory lectures, literature searches, and an independent investigation into a topic, ideally related to the student's own PhD program (suggestions below). By the end of the course each student will prepare a written report (3-5 pages, 1½ line spacing, 12 pt.) that will be presented (Powerpoint) and discussed by the entire group of students (20 min incl. discussion) and examined by the course coordinators (pass/fail).

Suggested topics for individual reports (modified according to topics for specific PhD studies):

- 1) The physics and chemistry of food: Its science, culture and philosophy in East and West.
- 2) Nutrition and health of the human body: Its science, culture and philosophy in East and West.
- 3) Functional foods and bioactive nutrients: What are the trends in East and West - and why?
- 4) Traditional Chinese Medicine (TCM) and Western medicine - are there room for cross talk?
- 5) Diet, nutrition and health - the secular and modern perspective versus traditional views.
- 6) Diet, nutrition and health - the religious perspective (Christian, Taoist, Buddhist, Hindu)?
- 7) Natural science and religion - mutual interactions and conflicts in East and West.
- 8) Diet-related life-style diseases and obesity - do philosophy, culture and religion play a role?

Hints for PhD course:

Lecture part, Copenhagen:

- Web site info, obligatory and supplementary reading material
- Course report format
- Food and beverages on lecture days
- Social events and field trips in weekend
- Expected attendance for all lectures (agreed exceptions possible)

Field studies in Hong Kong/China:

- Lap top, camera for field studies
- Expected attendance for all activities
- Expenses for living and food.
-

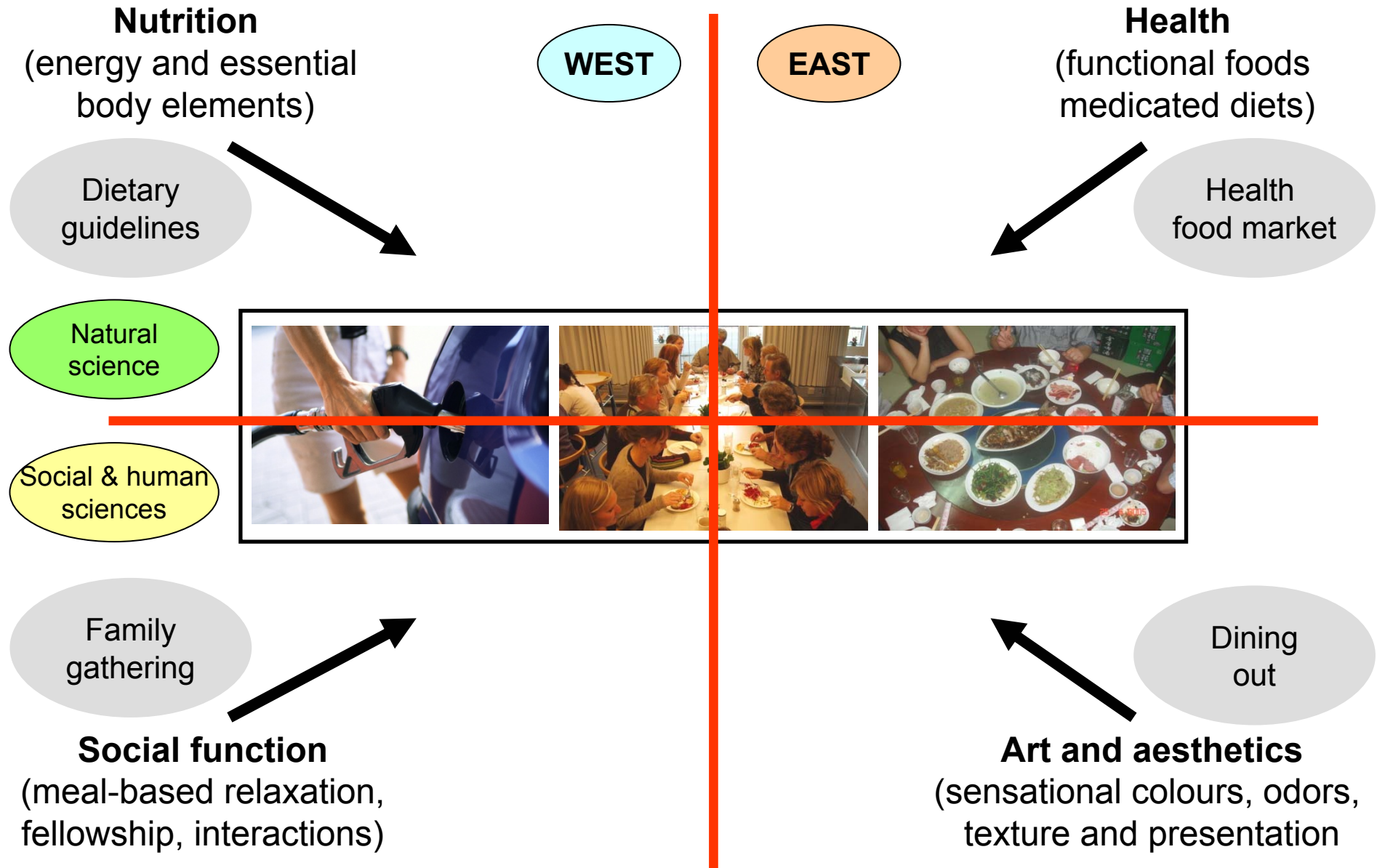
Miscellaneous:

- Remaining expenses for course – bill is sent
- Course report submission deadline 3rd Dec., response on 5th Dec.
-
- Can you learn anything from this course that will benefit your PhD project?

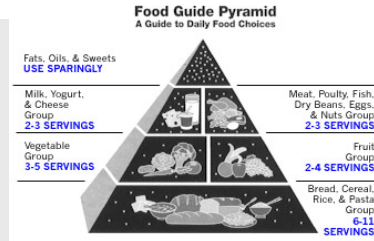
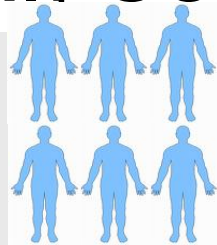
Lecture overview

- Presentation of coordinators
- Presentation of participants
- Presentation of course program
- Course report
- Introduction to course theme:
Food, Medicine & Philosophy

The function of meals?



Human Food and Nutrition: Natural, social and human science



Whole body nutrition
(ex. satiety, digestion, metabolism)

Population nutrition
(ex. guidelines, special groups)



Tissue/organ physiology
(ex. local body effects)

Sociology/Economics/History
(ex. meal patterns, class, education, price)



Cell biochemistry
(ex. isolated cell response)

Culture/Aesthetics/Gastronomy
(ex. food art, looks, palability, cooking)

Classical molecular science
(ex. mRNA, genotype)

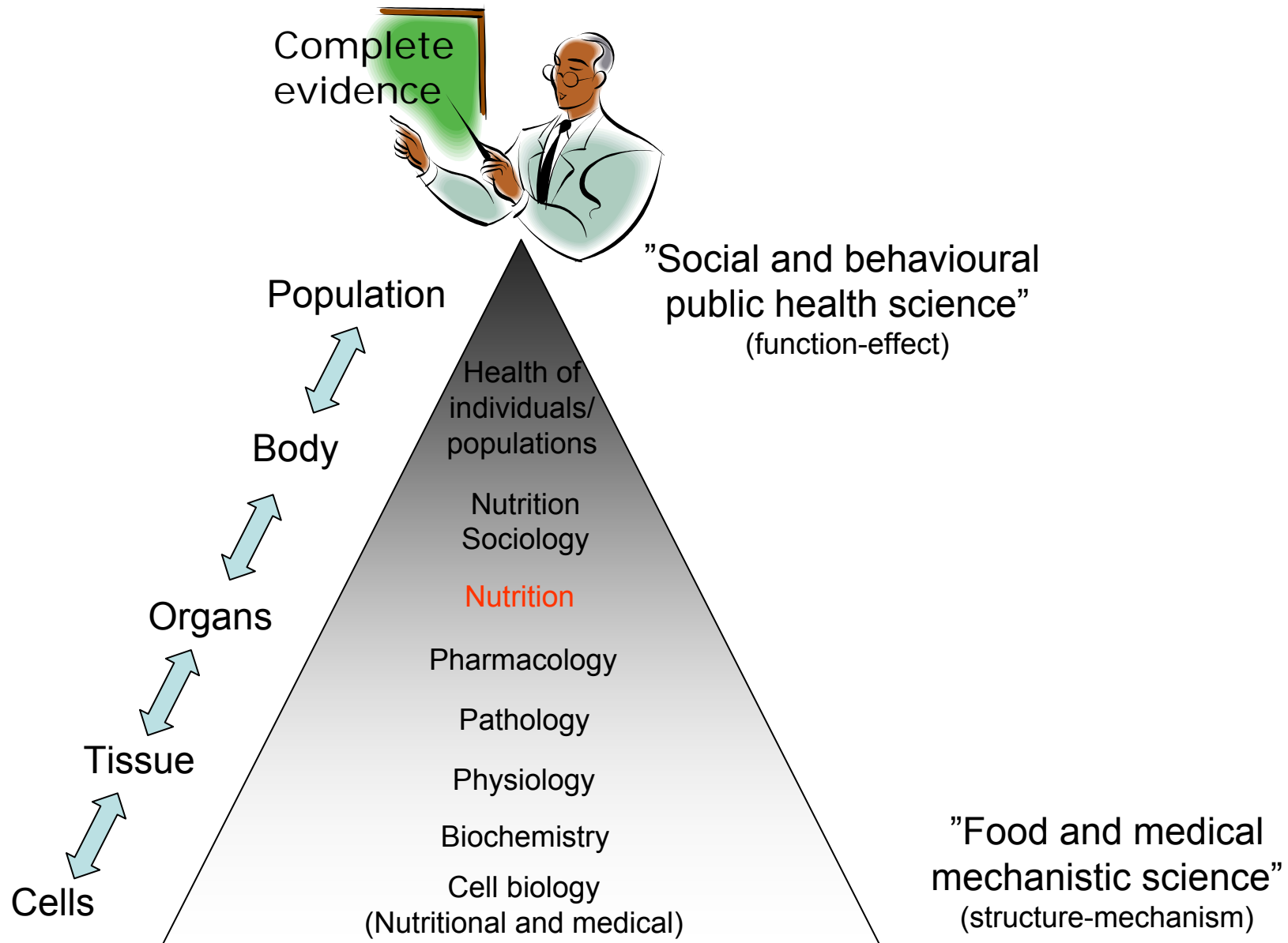
Culture/Art/Philosophy/Religion
(ex. tradition, vegetarianism, nature holism)



| Patient | Group |
|---------|-------|
| 20 | A1 |
| 6 | A1 |
| 10 | B1 |
| 8 | B1 |
| 15 | B1 |
| 11 | B1 |



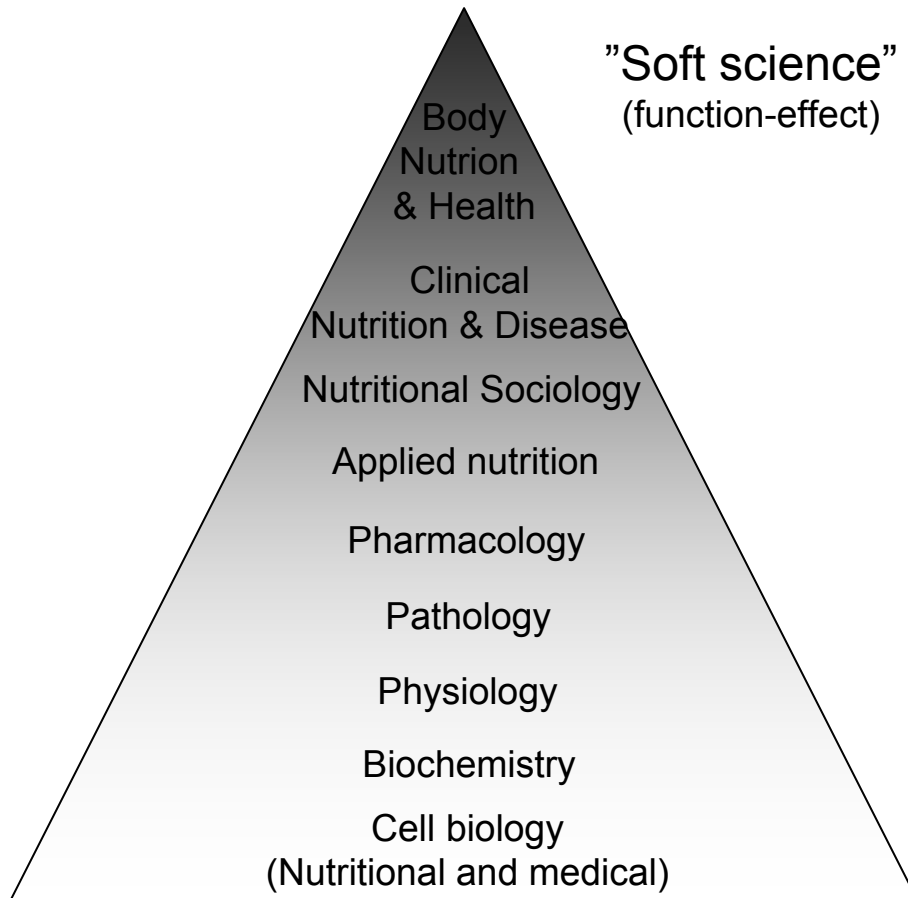
Nutritional/medical evidence hierarchy



Food & medicine science philosophy

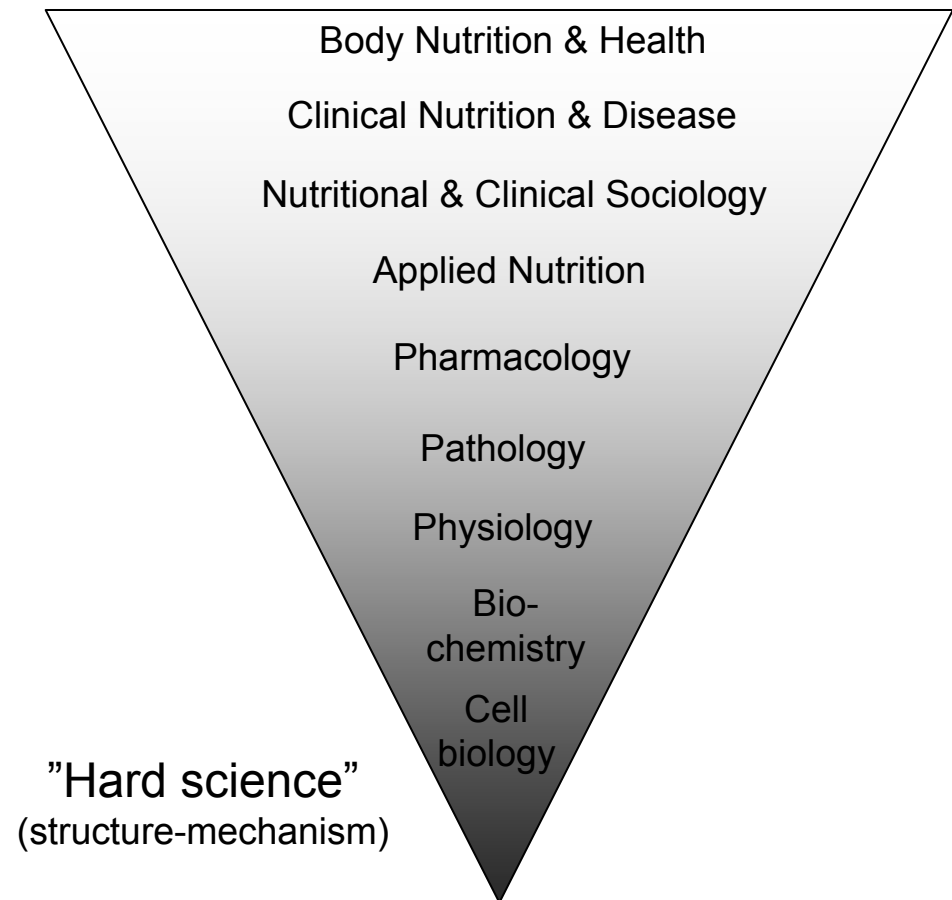
Classical Western
(dualism-reductionism
Greek – Christian)

Bottom→up



Classical Eastern
(holism-balance,
Taoism)

Top→down



(Western) nutrition science epistemology

(- how do we know, that we know...)

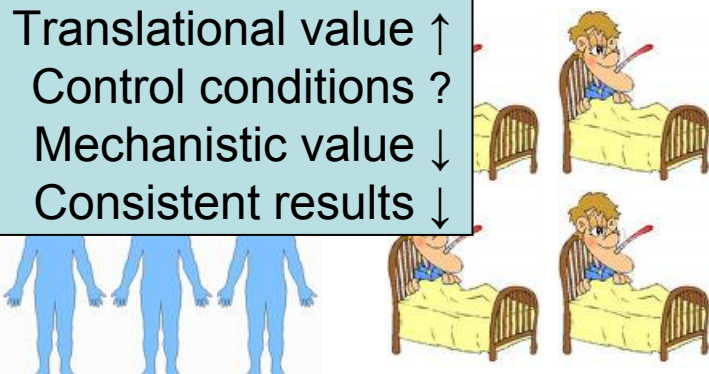
Observational studies
on health and disease

| | |
|---------------------|---|
| Translational value | ↑ |
| Control conditions | ↓ |
| Mechanistic value | ↓ |
| Consistent results | ↓ |



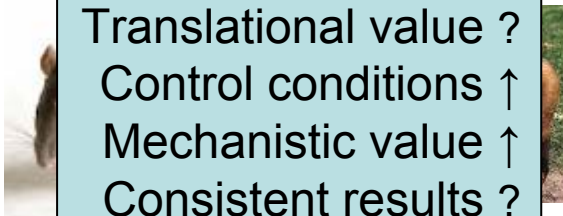
RCT human
intervention
studies

| | |
|---------------------|---|
| Translational value | ↑ |
| Control conditions | ? |
| Mechanistic value | ↓ |
| Consistent results | ↓ |



Animal model studies

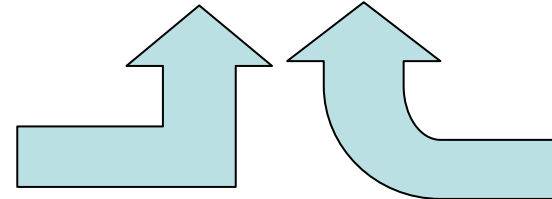
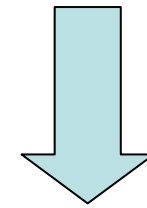

| | |
|---------------------|---|
| Translational value | ? |
| Control conditions | ↑ |
| Mechanistic value | ↑ |
| Consistent results | ? |



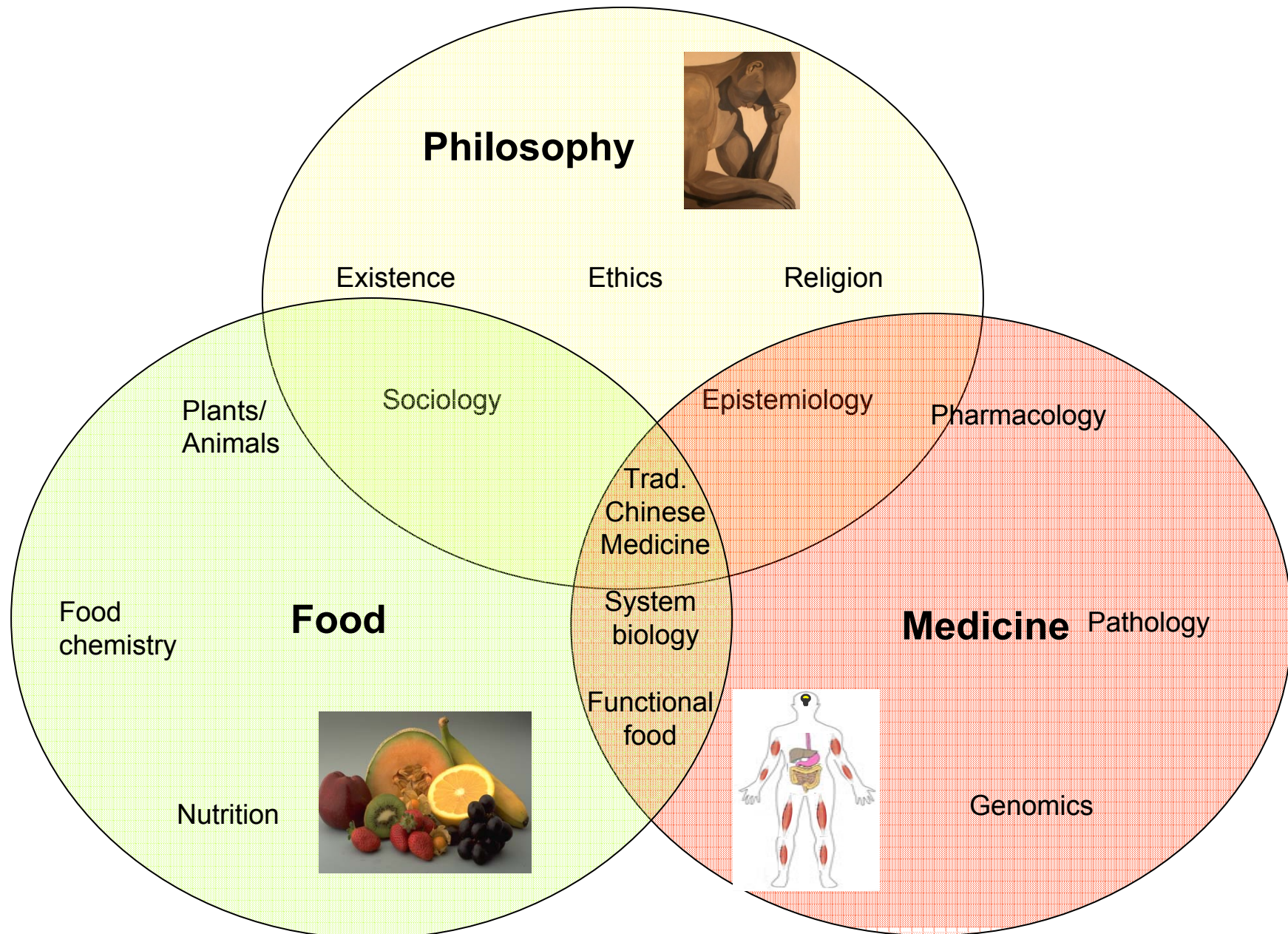
**Accepted
basic and applied
knowledge**

Cellular studies

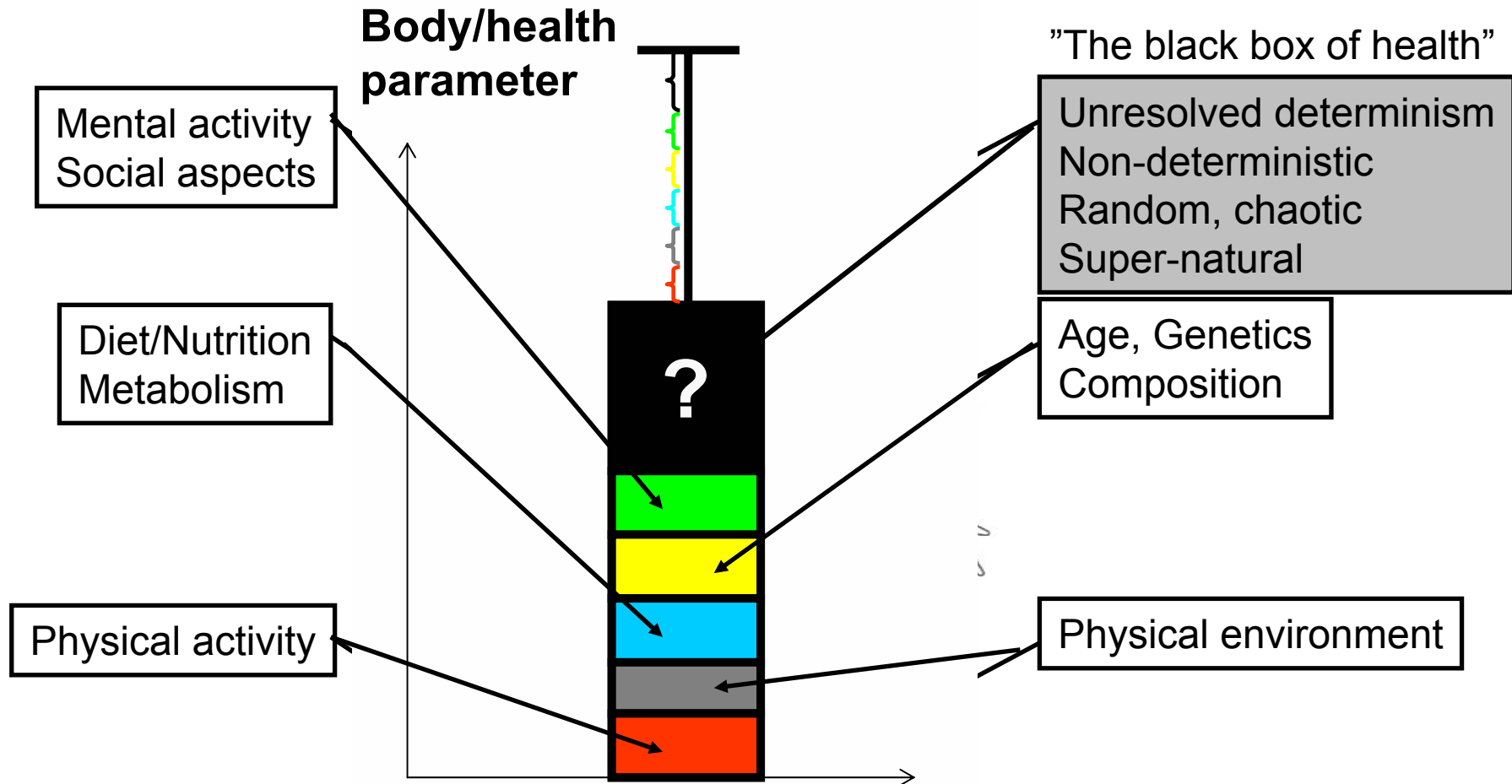
| | |
|---------------------|---|
| Translational value | ↓ |
| Control conditions | ↑ |
| Mechanistic value | ↑ |
| Consistent results | ↑ |



Food, medicine and philosophy – some main study fields:



Health determinants:

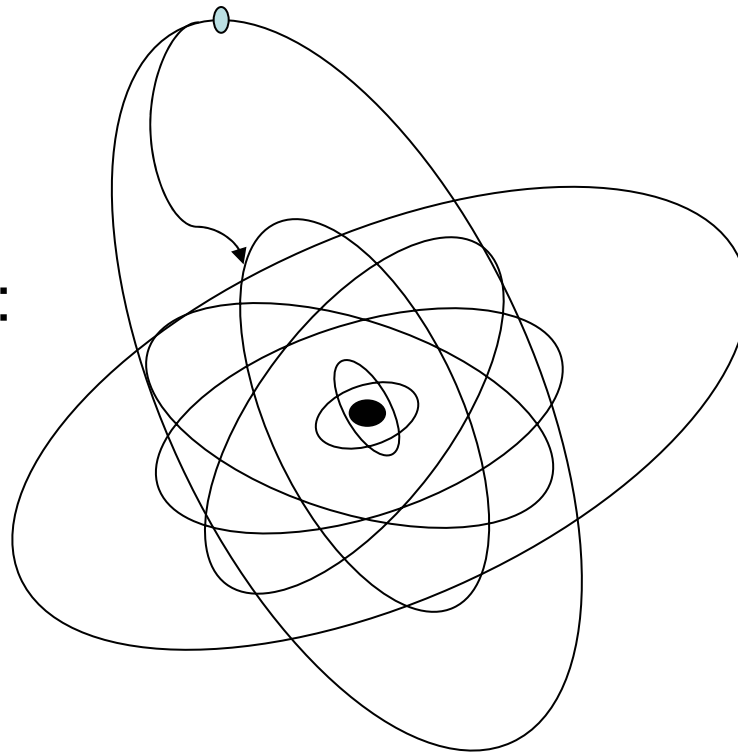


The same potentially applies for any given food

The Bohr and Einstein discussion about the nature of the natural world:

Albert Einstein:

100%
determinism



Niels Bohr:

Determinism +
"random" influence

Food and Medicine:

100% determinism or room for random/supernatural effects?