

# Northern College of Acupuncture

Online MSc Programmes (Research and Practice)

## NCA 7308 Complex Case Management in Nutrition

### Keynote Lecture 1 – Introductions, Concepts and Positioning

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## Keynote Lecture 1: Themes

- Challenges for 21<sup>st</sup> century medicine
- Personalised medicine and personalised nutrition
- Evidence-based or evidence-informed practice
- Evaluation of current practice



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## Study Materials and Resources

- Keynote lecture
- Guided self-directed study (mandatory and optional)
- Weekly video conference
- Discussion forum
- Personal Development Plan



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## Before We Start

### Mandatory Activity

Take 20-30 minutes to reflect on the following questions:

- What would you define as the main challenges facing medicine in the 21st century?
- What about the main challenges for healthcare practitioners?
- What do you see as the top five key challenges for your own clinical practice over the next 5-10 years?



Share your thoughts with your colleagues on the discussion forum

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## Challenges for 21<sup>st</sup> Century Medicine

- Halt and then reverse the epidemic of chronic disease
- Develop content and process of patient care to deal successfully with 21<sup>st</sup> century healthcare demands
- Develop and integrate new paradigms e.g. systems biology, integrative medicine and personalized care
- Build consensus for systematic approaches to addressing challenges
- Balance:
  - Demands for acute and chronic care
  - Costs and performance
  - Science and art
  - Research and clinical practice




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## Challenges for 21<sup>st</sup> Century Medicine

Daily challenges for healthcare practitioners in practice:

- Making better use of evidence
- Translating new tools and ideas into clinical practice
- Managing the uncertainty that is inherent in clinical practice
- Creating a healing partnership with patients

Requires a personalised, systems-medicine approach adapted to the complex demands of chronic disease

So how can we meet these challenges as experienced practitioners?




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## Challenges for 21<sup>st</sup> Century Medicine

- Learn and introduce different approaches to gathering and analysing patient data
- Twist the kaleidoscope and look at a new view
- Apply critical thinking to the use of evidence
- Create healing partnerships for both patients and practitioners
- Evaluate outcomes of clinical practice in the light of knowledge and experience




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## Personalised Medicine

“The effort to define and strengthen the art of individualizing health care by integrating the interpretation of patient data (medical history, family history, signs and symptoms) with emerging ‘-omic’ technologies - nutritional genomics, pharmaco-genomics, proteomics and metabolomics”

**Source:** Jones, D., Hofman, L. and Quinn, S., 2009. *21st Century Medicine: A New Model for Medical Education and Practice*. Gig Harbor, WA: Institute for Functional Medicine

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## Personalised Medicine

Optional Reading (45 minutes)

Useful articles on defining terms:

- Palou, A., 2007. From nutrigenomics to personalised nutrition. *Genes and Nutrition*, [online] 2(1), pp.5-7. Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2474919/> [Accessed 30 May 2018]
- Kussmann, M. and Fay, L.B., 2008. Nutrigenomics and personalized nutrition: Science and concept. *Personalized Medicine*, [online] 5(5), pp.447-455. Available at: <http://www.medscape.com/viewarticle/583041> [Accessed 30 May 2018]

Mandatory Activity (20 minutes):

- Identify three key strengths and three potential weaknesses of a personalised approach to medicine
- Post your thoughts on the discussion forum

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## Personalised Nutrition

Mandatory Activity (30 minutes)

- How do you define 'personalised nutrition'?
- How do you explain this concept to your clients/patients?



Post your definition and explanation on the discussion forum to debate with your colleagues and tutors

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## Personalised Nutrition

"An innovative concept that identifies individual nutritional needs based on genetic make-up. Included in the concept are the products and services that will be developed according to those needs."

Optional Reading (30 minutes):

- Ronteltap, A. and Van Trijp, H., 2007. Consumer acceptance of personalised nutrition. *Genes and Nutrition*, [online] 2(1), pp.85-87. Available at: <<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2474929/>> [Accessed 30 May 2018]



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## Personalised Medicine and Personalised Nutrition

### Integrating the Science and the Art of Medicine

- A model of comprehensive care and primary prevention for complex, chronic illness grounded in both the science and the art of clinical medicine


Optional Activity (40 minutes)

- Listen to Dr John Briffa discussing the art and science of medicine (clinical practice) at the Functional Forum (September 2017)
- Read this article by Woolever (2008) on the Art and Science of Clinical Decision Making: Woolever, D.R., 2008. Clinical Decision Making. *Family Practice Management*, [online] 15(5), pp.31-36. Available at: <<https://www.aafp.org/fpm/2008/0500/p31.pdf>> [Accessed 30 May 2018]
- Please note: Unfortunately the Patrick Hanaway video is no longer available on YouTube

Mandatory Activity (15 minutes)

Reflect on the following questions:

- Which aspects of personalised medicine and personalised nutrition might represent the science?
- Which aspects might represent the art?



Continue the discussion with colleagues on the discussion forum

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## Integrating the Science and Art of Medicine

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- Evolving sciences (genomics, pharmacogenomics and nutrigenomics) blended with...
- Nutrition science (diet, nutraceuticals and botanicals) for disease prevention and wellness promotion and...
- Mind-body therapies and other complementary and integrative approaches offer innovative and promising new approaches to healthcare plus the benefits of hard sciences, clinical medicine and integrative practices to patients, clinicians, researchers and educators



Source: Jones, D., Hofman, L. and Quinn, S., 2009. *21st Century Medicine: A New Model for Medical Education and Practice*. Gig Harbor, WA: Institute for Functional Medicine

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## Evidence-based Medicine to Evidence-informed Practice

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General approach to EBM in clinical settings:

- Select specific clinical questions from the patient's problem(s)
- Search the literature or databases for relevant clinical information
- Appraise the evidence for validity against the hierarchy of evidence and usefulness to the patient and practice
- Implement useful findings in everyday clinical practice



Gets us part of the way but EIP requires more!

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## Evidence-based Medicine to Evidence-informed Practice

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‘No RCT can inform, in a specific way, the appropriate clinical roadmap for assessment and planning for therapeutic interventions in this complex environment. Clinicians must use science; it is a powerful tool. But they should be in charge of how and when to use it, not dominated and intimidated by it’

- Combining research evidence with clinical practice and the patient's story can help to achieve optimal outcomes

Mandatory Reading (10 minutes)

Optimal outcomes:

- Jones, D., Hofman, L. and Quinn, S., 2009. *21st Century Medicine: A New Model for Medical Education and Practice*. Gig Harbor, WA: Institute for Functional Medicine, pp.50-52



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### Evidence-based Medicine to Evidence-informed Practice

- This document outlines some key differences between a conventional approach to medicine and the functional medicine approach and indicates how we can move from EBM to EIP

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### Evidence-based Medicine to Evidence-informed Practice

#### Mandatory Activity

Module Discussion Forum Debate:

- How do we transition from an EBM, guideline-driven, prescriptive clinical approach, to an evidence-informed, personalised, patient-centered practice that captures both the science and the art of medicine and is safe, ethical and effective?
- How do we balance the element of 'prescription' with the elements of 'personalised' and 'patient-centred' in our work with clients?
- What are some of the key practical challenges in using evidence to inform clinical practice? As busy practitioners, how can we overcome these?



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### Core Tenets of Functional Medicine

#### Optional Activity

Watch the following AV resources as reminders of the main tenets of FM:

- Mark Hyman Ted Med - What is FM?
- Please note: Unfortunately the David Perlmutter and David Jones video clip from 2009 is no longer available on YouTube

Additional optional resources:

- Functional Medicine: An 'operating' system for complex, chronic disease' - a short video clip with Patrick Hanaway from 2013
- Jones, D.S. and Quinn, S., 2017. *Introduction to Functional Medicine*. Gig Harbor, WA: Institute for Functional Medicine. Available at: <<https://sa1s3.patientpop.com/assets/docs/23325.pdf>> [Accessed 30 May 2018]



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## Revision - Core Principles of FM

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- Biochemical individuality based on genetic and environmental uniqueness
- Patient-centered vs. disease-centered approach
- Networks of causation
- Dynamic balance between external and internal factors
- Web-like interconnections of physiological factors
- Health as positive vitality
- Enhancement of organ reserve



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## Importance of the Patient's Story

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Three main angles:

- Where do the symptoms come from? (Antecedents and Triggers)
- What keeps them going? (Mediators and processes of mediation of the symptom)
- What can change the diseased allostatic balance point for the patient? (Underlying Points of Leverage where intervention can be most effective)



Optional Reading (20 minutes)

- Jones, D., Hofman, L. and Quinn, S., 2009. *21st Century Medicine: A New Model for Medical Education and Practice*. Gig Harbor, WA: Institute for Functional Medicine. pp.61-79
- Benson, D., 2014. David Jones, MD: Shaping the Practice of Medicine. *Integrative Medicine*, 13(5), pp.14-16. Available at: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4684102/>> [Accessed 16 Feb. 2021]

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## Before You Begin, Remember

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- Always seek the cause FIRST – dig deep!
- Focus on 5 underlying causes of illness
  - Toxins, allergens, infections, nutrition and stress
- Remember 7 ingredients for optimal function:
  - Food, nutrients, environment (air, light, water), movement, rhythm, love and meaning



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## The Right Order of Things

Learn how to restore function IN THE RIGHT ORDER

- Doing the right thing in the wrong order can have adverse effects (underwear over trousers, socks over shoes?)
- Navigate from the outer layers to inner layers of imbalance and dysfunction
- Seek to reset homeodynamic balance




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## The Right Order of Things

1. Start with food: Whole, real foods
2. Remove food allergens
3. Work with the gut – almost always
4. Optimise nutrient status
5. Balance hormones
6. Focus on detoxification as the last step!




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## The Right Order of Things: Peeling the Onion of Chronic Disease



Hyman, MA., 2009. The right order of things: peeling the onion of chronic disease. *Alternative Therapies*, 15(2), pp.18-20

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## FM Knowledge and Skills Audit

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### Optional Activity (30 minutes)

- Complete the attached Skills Audit questionnaire to consider your current level of FM knowledge and skills



- Identify any development issues that you would like to add to your PDP
- Identify actions to address these development issues during this module

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## Functional Medicine and the Healthcare System Important Additional Benefits

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- Functional Medicine creates a level playing field among practitioners
- The Functional Medicine model makes readily apparent that there is a need for many different approaches to helping people become and stay well
- Functional Medicine helps to create and disseminate a shared set of concepts and a common language
- Ultimately, Functional Medicine can contribute greatly to our ability to create an integrated healthcare system



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## Video Conference Preparation Goal Setting and Evaluation of Current Practice Mandatory Activity (30 minutes)

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- How am I using the FM approach/FM principles?
- How am I currently using EIP in my work with patients?
- How do I see my role as an advanced scholar practitioner in influencing approaches to healthcare for the future?
- How can I use this module to develop my role and my current practice with regard to EIP and/or FM and/or advanced scholarly practice? (See also results of your Skills Audit)



Bring your thoughts to the video conference for discussion

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## Additional Resources

- Jones, D., Hofman, L. and Quinn, S., 2009. *21st Century Medicine: A New Model for Medical Education and Practice*. Gig Harbor, WA: Institute for Functional Medicine
- Sult, T.A., 2013. *Just Be Well: A Book for Seekers of Vibrant Health*. Highland Park (Illinois): Writers of the Round Table Press
- [www.functionalforum.com](http://www.functionalforum.com) – “the world’s largest integrative medicine conference. On the first Monday of every month, this new concept in practitioner education, ‘medutainment’, brings together the latest health news, functional medicine research, practice development and health technology in an upbeat, entertaining way”



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