# HRI London 2019: 10 Years of Excellence in Homeopathy Research

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## **Abstract**

## **Keywords**

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- fundamental research

The Homeopathy Research Institute's (HRI's) 4th International Research Conference took place in the heart of London from 14 to 16 June 2019. With 352 attendees from 38 countries, this was HRI's largest and most international conference to date. HRI London 2019 will be remembered for the highest quality scientific programme so far, combined with a vibrant, positive atmosphere throughout, making it the perfect way to celebrate HRI's 10th Anniversary. Here we summarise the science presented during the intense 2.5-day programme.

## A Vital Role for Research

In recent years, the volume and quality of the homeopathy evidence base have increased, yet rather than reducing the degree of controversy around the topic as one might expect, the homeopathy debate has intensified.

Given the challenges currently faced by the homeopathy sector, we were proud to host our largest conference at a suitably iconic venue in central London. The conference was held right on the bank of the river Thames, next to the Tower of London and Tower Bridge. In his opening address, Mr David Tredinnick, Member of UK Parliament for Bosworth, a longtime advocate of complementary medicine and chairman of the All-Party Parliamentary Group for Integrated Healthcare since 2002, described his vision of the future where every home has a homeopathy kit. He also acknowledged the vital role of research in gaining acceptance of homeopathy, saying, 'It's quite clear that we need this valuable research to interact with the medical establishment. It's only a matter of time in my view before the weight of this new evidence is going to win the day.'

### **HRI London 2019**

As expected, the Homeopathy Research Institute (HRI) conference was a truly international event, demonstrated not only by our 352 delegates from 38 countries, but also by the 75 researchers and medics from 27 countries who presented their latest findings.

To create the scientific programme, 132 abstracts were rigorously peer-reviewed to select 34 for oral presentation. The standard of submissions was the highest to date, making the final selection for our limited number of talks particularly challenging. It was also encouraging to see the significant increase in the number of abstracts which met the quality threshold for poster presentation: 45 posters were presented in London compared with 25 at HRI Barcelona 2013 and 37 at HRI Malta 2017.

We were particularly delighted to bring this year's event to the UK to mark HRI's 10th anniversary. As we'd hoped, this resulted in many UK-based researchers and homeopaths attending for the first time. The HRI Educational Grants scheme, generously funded by the Manchester Homeopathy Clinic, once again provided financial support to UK residents wishing to attend the conference. This investment in the future of the homeopathy research sector is invaluable, helping educate a new generation of practitioners and researchers.

## A Fair Hearing?

To open the plenary sessions keynote speaker, Professor Robert Hahn (Sweden), and HRI's Chief Executive, Rachel Roberts (UK) tackled the somewhat loaded question of

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whether homeopathy gets a fair hearing. Professor Hahn discussed the 'primary bias' against homeopathy and how this influenced the methodological and data interpretation approaches used in a small number of influential systematic reviews that concluded homeopathy is no different from placebo. That is, the analyses published by Shang et al<sup>2</sup> and Ernst and Pittler<sup>3</sup> ignored the majority of the evidence reviewed and/or drew a negative conclusion based on extrapolated data, rather than providing an objective and fair conclusion based on the actual data.

The topic of 'primary bias' was discussed further by Rachel Roberts in the context of the 2017 statement produced by the European Academies Scientific Advisory Council (EASAC),<sup>4</sup> which presented a definitively negative position, clearly held from the outset. Attendees heard about the work done by the HRI team and European colleagues to challenge this extreme example of biased science. At an early stage in the process, HRI was particularly interested to be told directly by Professor Courvoisier (EASAC President) that 'it was never our intention to write a balanced statement'. And again, the final meeting between leading figures in homeopathy research and authors of the EASAC statement exposed a shocking unwillingness of EASAC to acknowledge the full evidence base on which they took their strong public position, leaving many pertinent questions asked by the HRI delegation unanswered.

# **Taking Stock**

The HRI London 2019 programme fully captured the 'cutting edge' theme of the conference, with a diverse range of talks from highly specialised clinical, fundamental, basic and veterinary research topics, to overviews of the evidence base as a whole. This combination of 'close up' investigations and summary analyses enabled the community to take stock of what the evidence is *actually* showing us, against the uninformed and often repeated claim that there is 'no evidence'.

Dr Robert Mathie (*UK*) presented the summary results of his extensive 10-year programme of work systematically reviewing the randomised controlled trial (RCT) evidence in homeopathy. One hundred and thirty-one RCTs were included in the full systematic review, 90 of which contained extractable data for meta-analysis. In turn, 13 RCTs with minimal risk of bias were identified (10 being suitable for meta-analysis), of which 5 were rated as 'highly reliable evidence', considering internal validity, model validity and external validity. Meta-analysis showed an unequivocally positive and statistically robust result for homeopathy compared with placebo, whether analysing all 10 RCTs with minimal risk of bias (odds ratio [OR] = 1.68, 95% confidence interval [CI]: 1.25 to 2.24, p < 0.001) or only the 5 'very best' studies (OR = 2.05, 95% CI: 1.33 to 3.15, p = 0.001).

Dr Katharina Gaertner (Switzerland) continued in a similar vein, highlighting the need to apply our understanding of the evidence base in homeopathy toward outcome-specific reviews of RCTs, tackling the more clinically relevant question of 'what evidence is there that homeopathy works in my

condition?', moving the debate beyond the oft-repeated question of whether homeopathy 'works' at all. Dr Gaertner has identified 452 RCTs out of a total of 631 controlled studies in 209 specific conditions and plans to look closely at the 59 conditions with at least 2 studies with the same homeopathic intervention.

Beyond the clinical evidence, Dr Alexander Tournier (*Germany*) presented results from an extensive review of physicochemical research in homeopathy, summarising the evidence from over 130 manuscripts, reporting on more than 200 experiments, indicating promising research avenues.<sup>5</sup> Similarly, Dr Annekathrin Ücker (*Germany*) provided a welcome overview of the growing body of evidence from plant-based experiments, highlighting the need for further independent replications as well as identification of factors that may influence the experiments.<sup>6</sup>

# **Primary Clinical Research**

Keynote speaker, Dr Elizabeth Thompson (*UK*), shared her personal experience of integrating homeopathy in cancer care, emphasising the value of this approach in the management of side effects during cancer therapy. Dr Thompson presented several clinical trials relevant to real-life situations, especially in the context of women's health, showing how targeted research can promote the integration of homeopathy, filling known gaps in the conventional care regimen.

Three further presentations reported on work involving homeopathy in the context of cancer management: promising results from homeopathic additional treatment to treat radiodermatitis in breast cancer patients (*Rossi, on behalf of Dr Cristina Noberasco, Italy*); how homeopathic treatment can help ameliorate fatigue in similar patients (*Freed, Israel*); and, to help oncologists better integrate homeopathy in their daily practice, Dr Jean-Lionel Bagot and Dr Ingrid Theunyssen (*France*) presented their work creating expert consensus recommendations in the context of oncological supportive care.

Other primary clinical studies presented during the conference included a simplified prescribing scheme for sciatic pain (*To & Fok, Hong Kong*); a long-term observational study of homeopathic treatment of atopic diseases in a cohort of 563 atopic adult patients (*Rossi, Italy*); a trial of individualised homeopathy in the treatment of stage I hypertension (*Varanasi, India*); an observational study assessing the potential of Oscillococcinum to reduce URTI exacerbations in patients with Chronic Obstructive Pulmonary Disease (*Saez, Spain*)<sup>7</sup>; and a study looking at the strength of association between specific symptoms and patient responses to the muriatic group of remedies (*Eizayaga, Argentina*).

# **Public Health and Patient Interests**

At a time when we are witnessing the impact of biased, negative reports limiting public access to homeopathy in some countries, stakeholders and patients alike deserve to know more about the potential role homeopathy can play in primary healthcare, particularly when many services are in crisis.

This particular challenge was described by Dr Russell Malcolm (*UK*), who presented the results of a qualitative audit of patients seen in an NHS clinic, whose funding was threatened. Dr Malcolm stressed the perception that homeopaths 'push sugar pills at the worried well', when in reality homeopathy provides a treatment option to a wide range of patients, many of whom are intolerant to drugs, no other treatment options are available, or have chronic multi-morbidities that are refractory to conventional treatment.

Adding to this 'grass-roots' experience, keynote speaker Dr Michael Teut (*Germany*) explained how decision-makers can be well-informed by comparative effectiveness research testing homeopathy against other treatment choices. Dr Teut highlighted the lack of 'actionable intelligence' for clinicians that arises from the widely accepted gold-standard RCT, where demonstrating efficacy beyond placebo has little bearing on a treatment's effectiveness under real-life conditions. This divergence between the information being generated by placebo-controlled trials and information needed to understand what treatments really do for patients is particularly common in complementary and alternative medical interventions.

Keynote speaker, Dr Clare Relton, described the development of an innovative pragmatic RCT design. Her 'TwiCs' (Trials within Cohorts) design, born from frustration with performing 'gold-standard' double-blind RCTs, maintains best research practice, while a usual care setting makes trial involvement more palatable to patients and ensures that the findings are directly relevant to real clinical situations.<sup>8</sup>

In India, such patient-centred approaches to studying the impact of homeopathy in public healthcare are already being performed on a large scale, often in resource-limited situations. Dr Debadatta Nayak showed how individualised homeopathy can play a role in the management of thrombocytopenia (low blood platelet count) associated with Dengue, alongside conventional care<sup>9</sup>; Dr Raj Manchanda presented encouraging positive results from a trial of homeopathy, used as an adjunct to conventional medicine, in the treatment of encephalitis in children<sup>10</sup>; and Dr Anil Khurana presented the results of a public health initiative involving use of a six-remedy kit to promote healthy development in the teething stage in 11,426 children.<sup>11</sup>

## **Veterinary Studies**

It was encouraging to see a greater number of veterinary contributions to the programme this year, with more oral and poster presentations than HRI Malta 2017. Dr Cidéli Coelho (Brazil) described a randomised and blinded study of the remedies Papaver somniferum and Arnica montana in assisting the recovery of dogs after ovariohysterectomy. Dr Franscinne Narita (Brazil) presented a small study (n=10) treating liver conditions in rescued Magellanic penguins housed in a zoo: the remedy Carduus marianus 6 cH had comparable effects to conventional treatment without any side effects and at lower cost.

## **Beyond the Placebo Effect**

Given the continuing 'homeopathy is only placebo' echochamber in the media and scientific establishment, experiments investigating the biological activity of homeopathic preparations in plant, animal and cell models—in the complete absence of placebo effects—have particular relevance to the debate.

Presentations included description of an experimental system that simulates the human gut microbiome and its response to infection showing an activating effect of *Okoubaka aubrevillei* mother tincture and 3*C* (*Buchheim-Schmidt, Germany*); the protective activity of a combination of remedies commonly used in cough against cigarette smoke extractintoxicated bronchial cells in vitro (*Marzotto, Italy*); subcutaneous isopathic immunotherapy showing a significant positive effect in an experimental model of allergic asthma (*Shahabi, Iran*)<sup>12</sup>; and *Ferrum phosphoricum* D12 treatment of macrophage and pre-adipocyte cell lines grown in vitro showing significant alteration of expression level in a range of genes involved in iron uptake, antioxidant enzymes and immunostimulation (*Tasinov, Bulgaria*).

Dr Stephan Baumgartner (*Switzerland*) and Sandra Würtenberger (*Germany*) also presented the results of an extensive series of studies by the late Dr Tim Jäger (1970–2019) using a biological model of mercury-stressed *Lemna gibba* L. (duckweed): treatment of plants with *Mercurius corrosivus* 24x–30x enhanced plant growth under mild stress but reduced growth in severe stress.

Furthermore, Professor Christian Endler and Dr Corinne Kraus (Austria) confirmed previous results using the wheat germination model, showing that higher germination rates were seen when the remedy ( $Silver\ nitrate$  in  $10^{-2}$  to  $10^{-24}$  dilutions) was agitated, compared with being applied by simple pipetting. These results directly support the theory that succussion contributes to biological activity—a central tenet of homeopathy.

## Strengthening the Foundations

The keynote presentation by Professor Vladimir Voeikov (Russia) addressed the core question in the homeopathy debate: are homeopathic ultra-high dilutions different in their physicochemical properties compared with water? Professor Voeikov presented the work of his colleague, Professor Alexander Konavalov, proposing that water forms structures -'nanoassociates'—which result in different physicochemical properties (conductivity and zeta potential) as well as appearing as structures approximately 100 nm in diameter in Dynamic Light Scattering and Nanoparticle Tracking Analysis measurements. These nanoassociates seem to disappear when the containers are shielded from ambient electromagnetic frequencies (EMF), leading to the idea that nanoassociates are quasi-stable or dissipative structures dependent on ambient EMF noise for their continued existence. Thus, Professor Voeikov concluded that, 'Homeopathy doesn't contradict modern physics and chemistry. It has a very solid scientific foundation.

To add to this experimental evidence, Dr Steven Cartwright (*UK*) presented further results from his work using the spectral properties of solvatochromic dyes to explore the physicochemistry of homeopathic preparations. Preventing the aggregation of dyes using encapsulation or immobilisation on a membrane, he was able to confirm the presence of a strong electromagnetic field in homeopathic preparations.

Also looking into the properties of homeopathic dilutions, Dr Maria Olga Kokornaczyk (*Switzerland*) reported on work with the 'droplet evaporation method', where the patterns formed when a liquid sample is left to evaporate were found to be distinguishable between low potencies of different homeopathic remedies. Using a similar technique, Paul Doesburg (*Holland*) presented results using the 'cress seedling, copper sulfate crystallization' technique where extracts from cress seeds treated with *Stannum met* 30x reproducibly formed different crystallisation patterns compared with controls, similar to those reported in a preliminary study.

# **Moving Beyond Medicine**

At a time when researchers worldwide are focusing on sustainable agriculture, organic farming and environmental restoration, the potential role of homeopathy beyond medicine must be considered.

Keynote speaker, Professor Leoni Bonamin (*Brazil*) introduced a novel and powerfully simple biological system to test the impact of homeopathy on environmentally stressed organisms. *Artemia salina*, a small crustacean which can be grown easily in the laboratory, can be used as a biosensor for ecological disruption given its sensitivity to pollution. Specifically, Professor Bonamin reported on the results of treating Glyphosate-exposed *Artemia* with *Glyphosate* 6C isotherapy which improved their general health (behaviour, hatching and reduced defects). Using the same system, Professor Bonamin's group tested the use of isotherapy after intoxication with mercury chloride. A strong effect of the moon on the hatching rate of the *Artemia salina* was seen, as expected for a marine organism, but this effect was distinct from the beneficial effects of *Mercury chloride* 30C.

#### **Our Thanks**

As we reflect on another successful conference, our heartfelt thanks go to the delegates, presenters, sponsors and exhibitors without whom the HRI conferences would not be possible. Thanks also go to the HRI conference team—particularly Event Organiser Simon Wilkinson-Blake—who worked tirelessly for 18 months to bring the event together.

As we close the door on this first 10-year chapter of HRI, we look forward to what the future brings, knowing that we

are all part of a highly talented and resolute community that is committed to continually striving for excellence in homeopathy research.

Full details of HRI London 2019, including free-to-view filmed speaker presentations, can be found at www.HRILondon2019.org.

Presentations from HRI's previous conferences are also available free of charge at www.HRIBarcelona2013.org/films, www.HRIRome2015.org/films and www.HRIMalta2017.org/films).

Conflict of Interest None declared.

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