Apiterapi ve Doğa Dergisi
Journal of Apitherapy and Nature
www.dergipark.gov.tr/jan

ARC (Apiceutical Research Centre): Exploring a New Generation of Medicines from the Beehive

James FEARNLEY*

Apicultural Research Centre

Received/Geliş Tarihi: 08/10/2018, **Accepted**/ Kabul Tarihi: 19/10/2018
***Corresponding author** /Yazışılan yazar

Abstract

Modern pharmaceutical medicine is in crisis. The search for the magic bullet is proving ever more elusive and inadequate. Whilst the economically driven pharmaceutical juggernaut trundle on, the definition and meaning of medicine is being redefined – from targeted, synthetic and single molecule to natural, synergistic and holistic. Science is turning back again to natural whole products with a new will to understand their complexity, intricacy and potency as medicines for man. Medicines from the beehive as with plant medicines have been used for millennia. In our short sightedness however, we have isolated the loudest instruments in the orchestra and synthesised them, but we have lost the symphony.

We must thank the East Europeans for keeping alive a scientific understanding of bee medicines. Over 40 years ago the Kazan Veterinary Institute published research which showed that combining propolis with antibiotics increased the effectiveness of the antibiotics by up to 100 times. We had to wait till the 1990's before the West began to publish scientific papers. Thanks to a brilliant combination of marketing and science, Manuka Honey has become known to millions of consumers worldwide as a natural antibiotic. It is a shame that this marketing drive has left those same consumers thinking only Manuka honey has antibiotic properties. Research into propolis, potentially the greatest medicinal jewel in the beehive treasure chest, has grown exponentially over the last ten years with Brazil, China, Turkey and India now major contributors.

Research in UK has grown steadily over the last 15 years particularly at the university of Strathclyde in Scotland. They have developed a greater understanding of how the chemical compounds collected by the honey bee from plants and trees within their local environment is transformed by the honey bee into a product able to provide immune defence for the whole superorganism which is the bee colony.

The relationship between climate and the antibacterial properties of propolis is now more clearly understood. The discovery of anti-trypanosome chemicals in propolis in areas where there is sleeping sickness has opened exciting new research possibility.

ARC (Apiceutical Research Centre) founded in 2010 has grown out of these insights, in particular the concept that the bee hive could be a source of a unique new generation of (Geographic) Medicines for man.

Since 2011 ARC has been linking research activity round the world through a series of international conferences and more recently through the formation of IPRG (International Propolis Research Group). ARC's Global BeePharma project further explores the concept of Geographic Medicine i.e. valuable therapeutics for man derived from the unique transformation by the honey bee of the plants defence mechanism (generated in response to its environment), into the honey bees immune support mechanism and the positive relationship of these immune defence products to the diseases effecting man in those same geographic areas. ARC has developed plans to build The BeeArc, a physical research centre and exhibition centre based in North Yorkshire UK and focussed on Apiceuticals – medicines from the beehive and sustainable beekeeping.