## **INFERTILITY I**



## How ImuPro could help to restore fertility

Infertility affects a growing number of couples. Circumstances such as the modern life style, the late attempt to get pregnant, living in a rush, stress, contraception and improper diet are made responsible for this.

## PCOS: a common endocrine disease

Polycystic Ovary Syndrome (PCOS) is one of the common endocrine diseases that affects women in their reproductive age. PCOS has diverse clinical implications that include reproductive (infertility, subfertility, hyperandrogenism, hirsutism), metabolic (insulin resistance, impaired glucose tolerance, type 2 diabetes mellitus, cardiovascular diseases) and psychological features (increased anxiety, depression and worsened quality of life) [1]. Literally all pharmacological attempts to treat PCOS and increase fertility failed [2]. In a review, Farell concluded: "Available literature on the physiological (i.e., hyperandrogenism, central obesity, inflammation, insulin resistance) and psychological (i.e., depression, anxiety, eating disorders) factors among women with PCOS provides evidence that these various aspects of PCOS are strongly inter-related." [3]. Other studies support the supposition that inflammation directly stimulates the polycystic ovary to produce androgens [4].

As inflammation seems to play the key role not only in PCOS, but also in insulin resistance, one should try to identify **the cause of pro-inflammatory stimulation** and avoid the triggers, rather than trying to suppress inflammatory response. ImuPro is mainly targeting pro-inflammatory conditions, though it seems evident that an IgG guided diet improves PCOS and related disorders enabling increased fertility. Alternative approaches, such as NaProTechnology (Natural Procreative Technology), where nutrition plays a crucial role, have successfully incorporated IgG testing against food in their treatment schemes for infertility [5]. In conclusion, pharmaceutical treatment only yields mixed improvement of PCOS. Medication used is aiming to reduce negative effects of metabolic disorders, especially insulin resistance. Identifying IgG positive foods responsible for the formation of circulating immune complexes and removal of these foods from the diet could represent a powerful tool to reduce chronic inflammation and restore fertility.

## References:

- [1] The Role of Obesity in the Development of Polycystic Ovary Syndrome.Motta AB. Curr Pharm Des. 2012 Feb 29.
- [2] Medical management of metabolic dysfunction in PCOS. Duleba AJ. Steroids. 2012 Mar 10;77(4):306-11. Epub 2011 Dec 13.
- [3] Insulin Resistance, Obesity, Inflammation, and Depression in Polycystic Ovary Syndrome: Biobehavioral Mechanisms and InterventionsKristen Farrell, M.S. and M Michael Antoni, Ph.D.Fertil Steril. 2010 October; 94(5): 1565–1574.
- [4] Polycystic ovary syndrome and chronic inflammation: pharmacotherapeutic implications. Sirmans SM, Weidman-Evans E, Everton V, Thompson D. Ann Pharmacother. 2012 Mar;46(3):403-18. Epub 2012 Feb 28.
- [5] Naprotechnology (Natural Procreative Technology) a multifactorial approach to the chronic problem of infertility Phil Boyle, Joseph Stanford ISSN1392-6373 Sveikatos mokslai 2011, volume 21, number 3, p. 61-68 biomedicina

