

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

# تدابیر طب سنتی در بهبود کیفیت زندگی در یائسگی





# رویکرد طب سنتی

1. در بررسی بیمار، همزمان توجه به شرح حال طب رایج و طب ایرانی اهمیت دارد.
2. ویزیت و درمان از دیدگاه طب ایرانی به منزله بی نیازی از مراجعه به سایر متخصصین نیست.
3. ویزیت و درمان از دیدگاه طب ایرانی به منزله بی نیازی از راهکارهای تشخیصی و درمانی طب رایج نیست.
4. دیدگاه تلفیقی (Integrative) برای رسیدن به بهترین اهداف درمانی و کمک به بیمار بهترین دیدگاه میتواند باشد.
5. در درمان با طب سنتی دیدگاه سیستمی و کل نگر همواره باید وجود داشته باشد.
6. در مداخلات درمانی بر اساس طب سنتی باید به سبک زندگی توجه ویژه ای داشت.
7. توجه به سایر ارگانها بویژه گوارش در درمان اهمیت دارد.

## پیشگیری و درمان در طب سنتی

۱- دیدگاه کل نگر

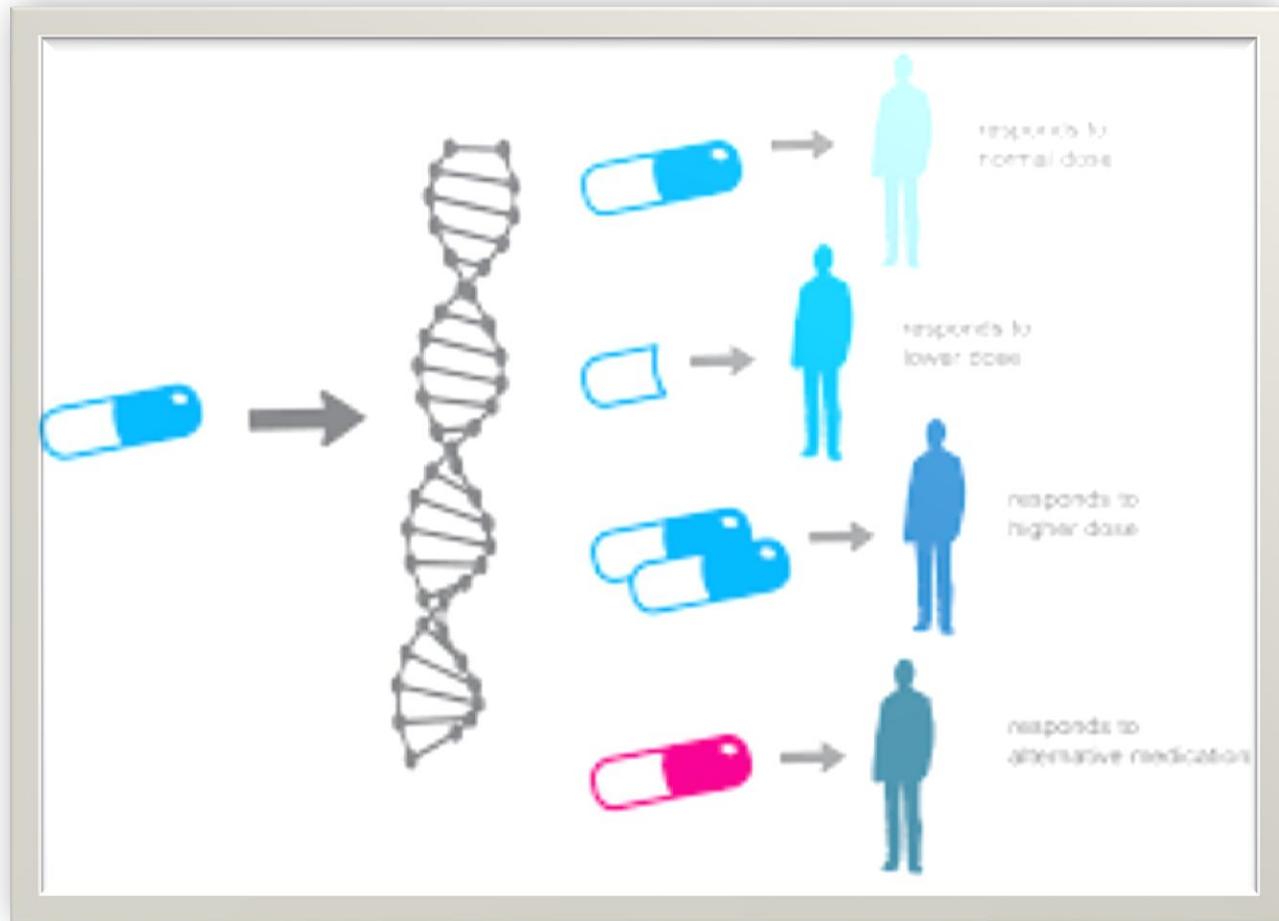
۲- توجه به سایر ارگانها

۳- توجه به سته ضروریه و سبک زندگی در درمان و پیشگیری

۴- دیدگاه مزاجی در درمان و پیشگیری

- ❖ **3P Medicine**: predictive preventive personalised medicine (PPPM/3PM)
- ❖ **P4 medicine** (predictive, preventive, personalized and participatory)
- ❖ **System medicine**
- ❖ **Lifestyle medicine**
- ❖ **Personalized medicine**
- ❖ **and Microbiota & tailor therapy and .....**

# Personalized medicine

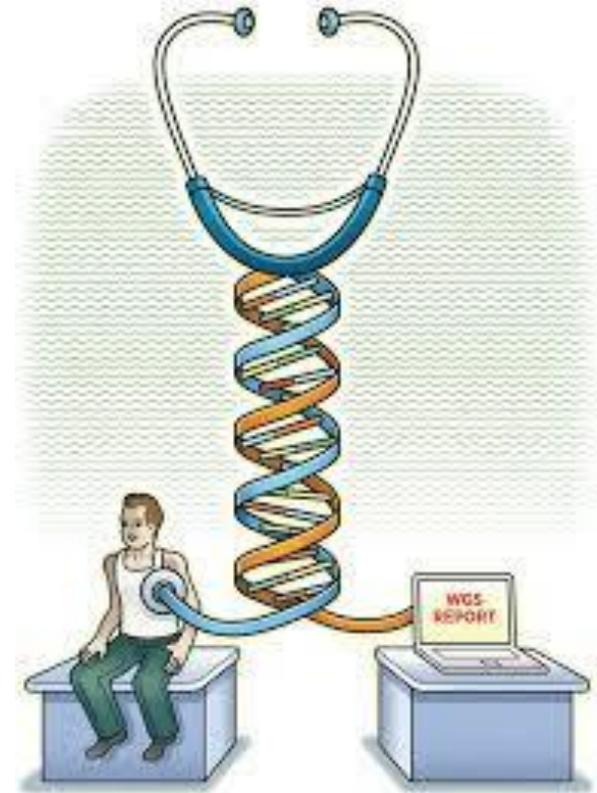


## tailor therapy



# The purpose of personalization of recommendations

- 1) **Greater safety**
- 2) **Better clinical effectiveness**
- 3) **Reducing treatment costs**
- 4) **Reducing the variety of providing additional services**
- 5) **Increasing patient satisfaction**



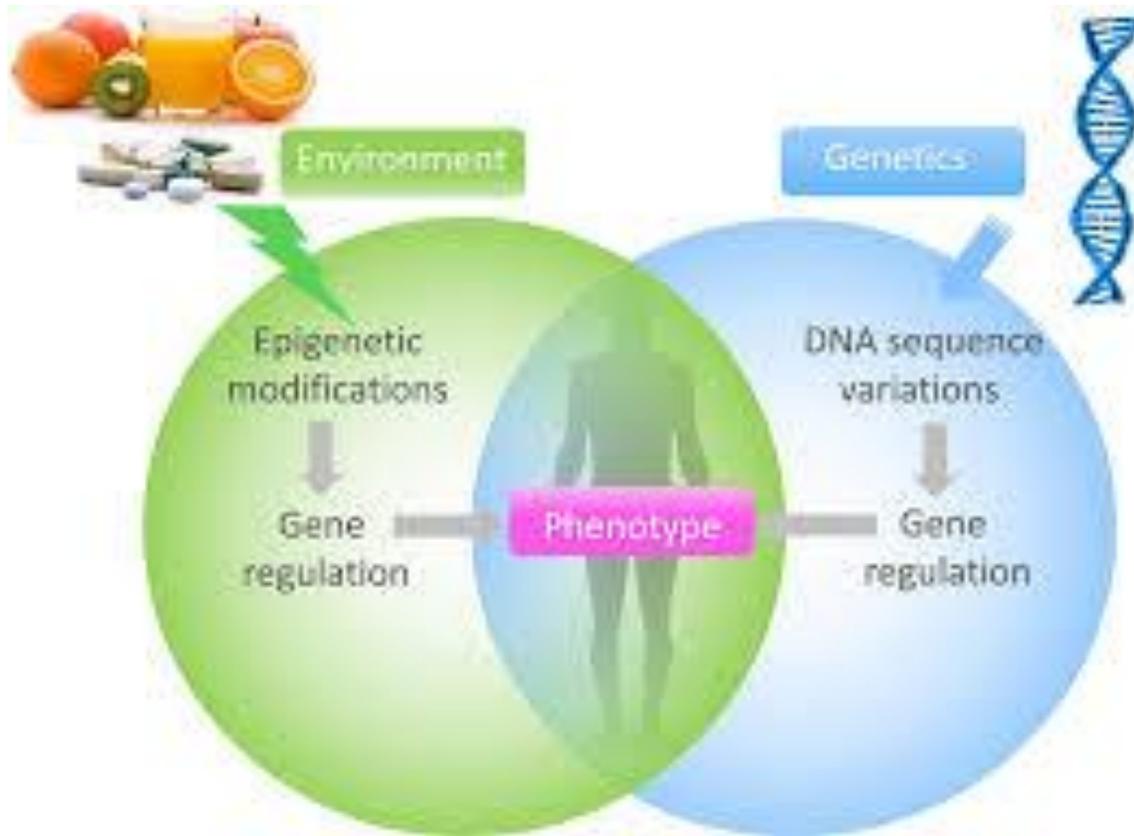
# Lifestyle medicine



پزشکی سبک زندگی: که از مداخلات درمانی مبتنی بر سبک زندگی به عنوان روش اصلی در درمان استفاده میکنند.



# Lifestyle Modification & EPIGENETICS



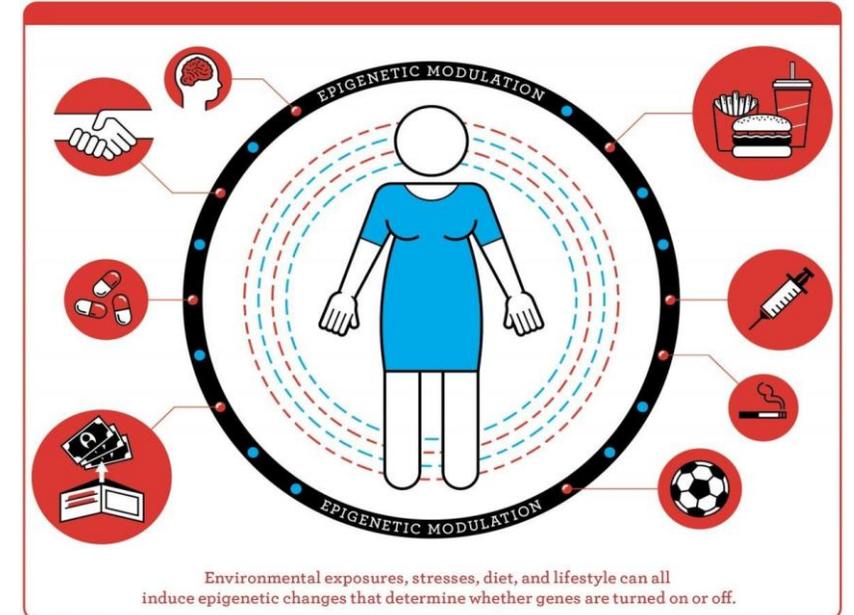
چرا سبک زندگی مهم است؟

در گذشته تصور بر این بود که تنها ژنوم است که به ارث می‌رسد یا فنوتیپ افراد را تعیین می‌کند. اما امروزه ثابت شده که محیط بر چگونگی بروز ژن‌ها اثر می‌گذارد و میتواند به فرزندان نیز منتقل شود. اثر محیط بر ژن طوری که بر نحوه بیان آن اثر بگذارد اپی ژنتیک است.

فنوتیپ از دو مولفه و تأثیرات متقابل این دو ناشی می‌شود:

- بیان ژنوم یا ژنوتیپ
- تعامل ژنوم با عوامل محیطی

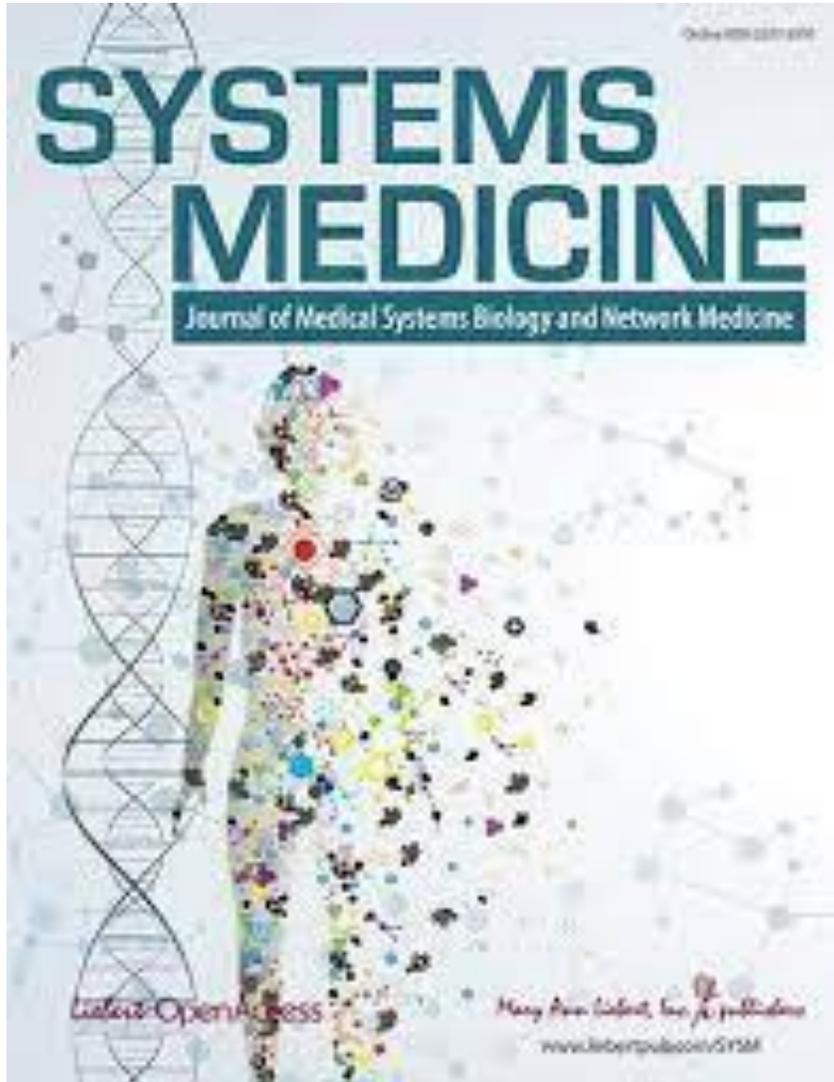
# فنوتیپ



فنوتیپ یک ارگانیسم، مورفولوژی، شکل و ساختار فیزیکی ارگانیسم، رشد، رفتار، ویژگی‌های بیولوژیکی و فیزیولوژیکی و حتی محصولات ارگانیسم را پوشش می‌دهد.

مزاج شناسی:

شناخت فنوتیپ فرد است که اساس تشخیص و درمان در طب سنتی است و مشخص کننده پاسخ درمانی بیمار به تدابیر درمانی است.



## Systems medicine

**Systems medicine** is an interdisciplinary field of study that looks at the systems of the human **body as part of an integrated whole**, incorporating biochemical, physiological, and environment interactions. Systems medicine draws on systems science and systems biology and considers complex interactions within the human body in light of a patient's **genomics, behavior and environment**.

## **3P Medicine :**

**p**redictive **p**reventive **p**ersonalised medicine  
(PPPM/3PM)

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**International Research Agenda 3P – Medicine Laboratory** (Preventive, Personalized, Precision) is a new scientific unit specializing in research on acquired genetic anomalies as risk factors for cancer and other illnesses.



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## INTERNATIONAL RESEARCH AGENDA 3P – MEDICINE LAB

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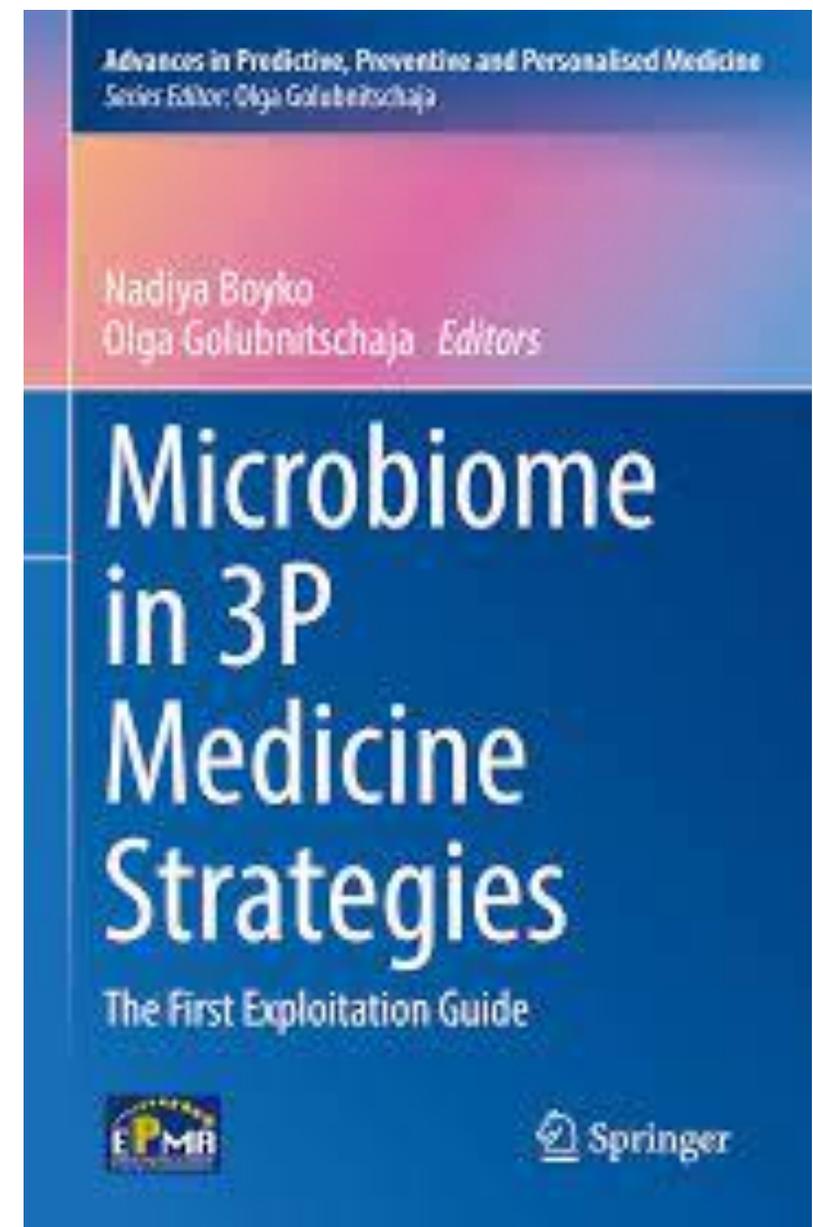
Team

Publications

Collaboration

Contact

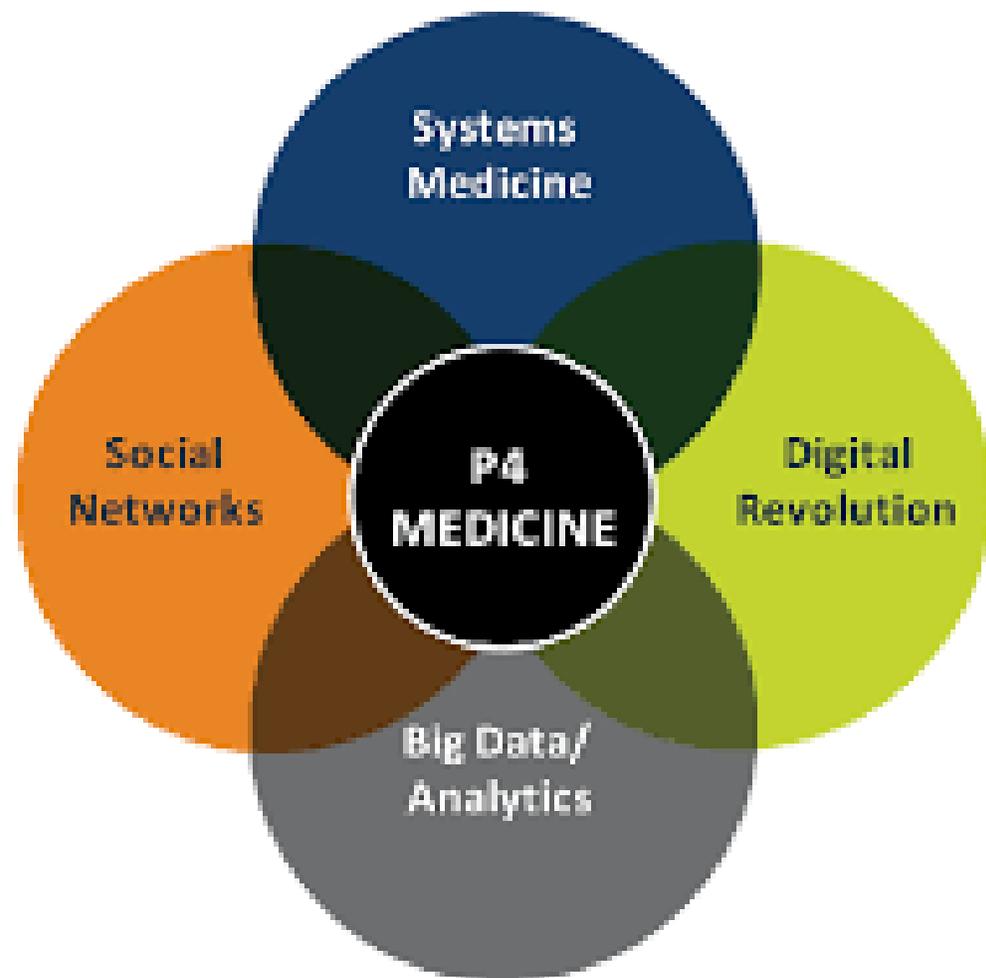
- Provides a unique attempt to make a bridge between human microbiome and real protocols for medical practice
- Offers a new vision on human microbiome data as an instrument of personal health and disease balance
- Summarizing probiotics efficacy data within the prism of 3P medicine approach



# P4 Medicine

● PREDICT ● PREVENT ● PERSONALIZE ● PARTICIPATE





## **P4 Medicine: Personalized, Predictive, Preventive, Participatory A Change of View that Changes Everything**

**Leroy E. Hood  
Institute for Systems Biology**

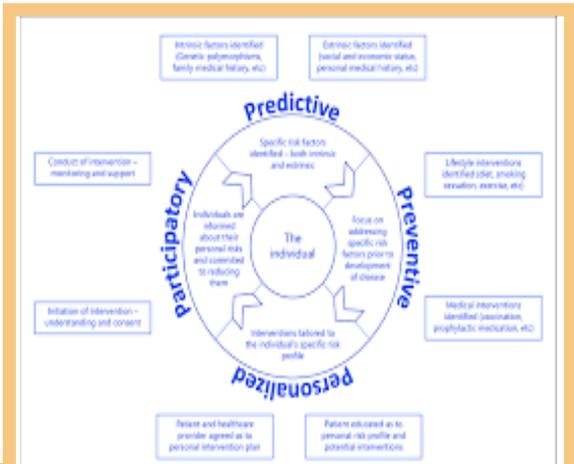
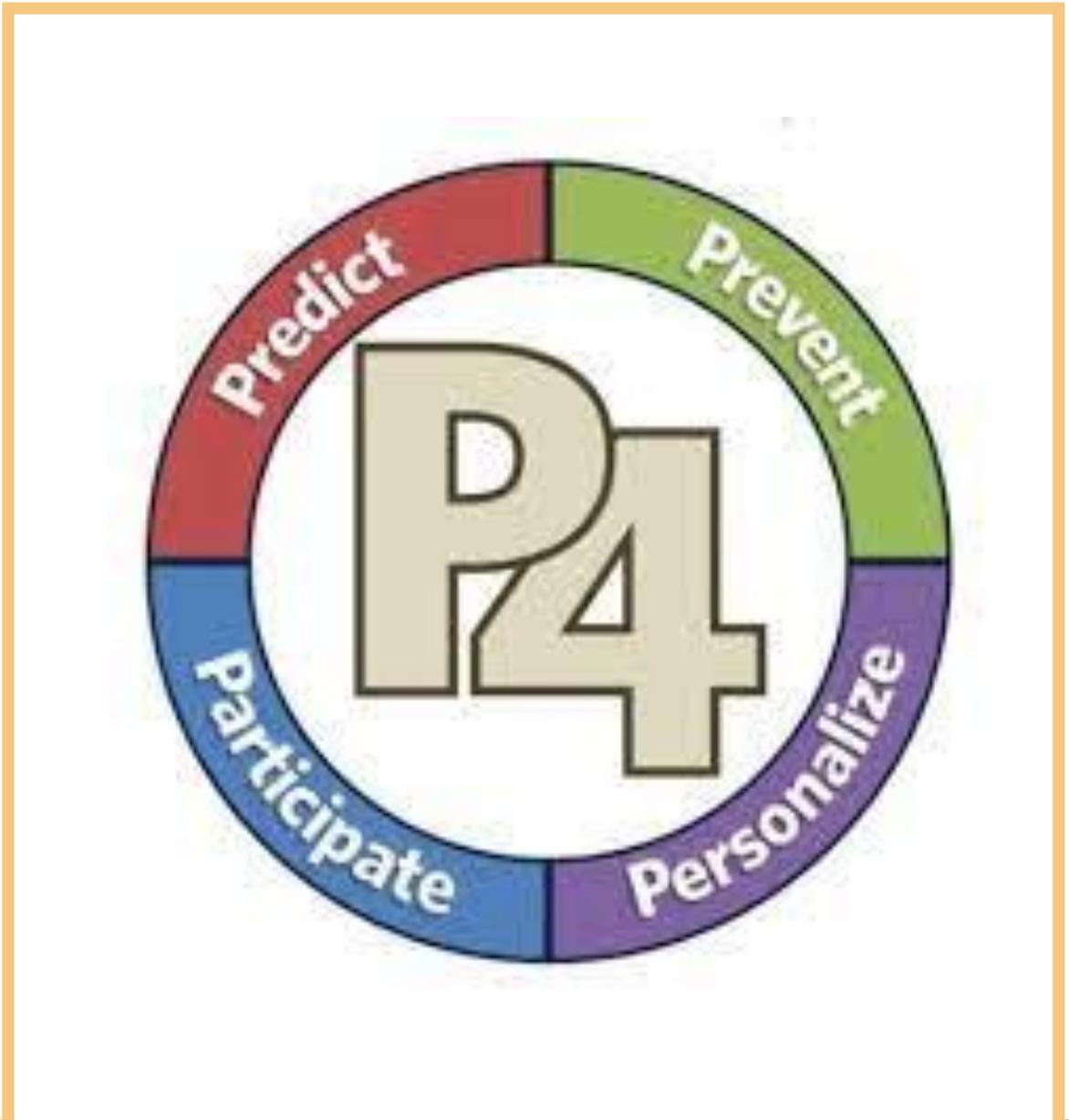
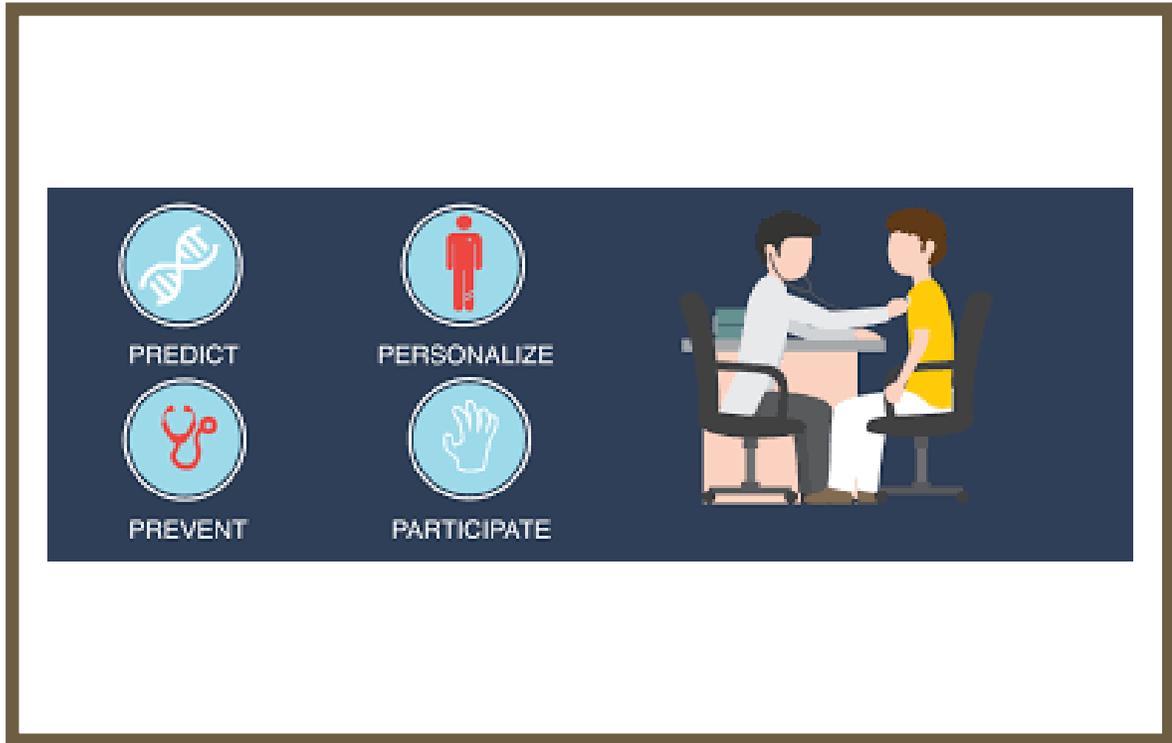
**David J. Galas  
Battelle Memorial Institute**

**Version 6: December 12, 2008<sup>1</sup>**

Medicine is now undergoing a major revolution that will transform the nature of healthcare from reactive to preventive. The changes will be catalyzed by a new systems approach to disease that will trigger the emergence of personalized medicine — a medicine that focuses on the integrated diagnosis, treatment and prevention of disease in individual patients.

This change is rooted in new science<sup>2</sup>. The convergence of systems approaches to disease, new measurement and visualization technologies, and new computational and mathematical tools can be expected to allow our current, largely reactive mode of medicine, where we wait until the patient is sick before responding, to be replaced over the next 10 to 20 years by a personalized, predictive, preventive, and participatory (P4) medicine that will be cost effective and increasingly focused on wellness.

Key benefits of P4 medicine, to the patient and to the system, include new abilities to:





## توجه به سایر ارگانها در درمان

➤ در دیدگاه طب ایرانی در درمان (بویژه بیماریهای رحمی)، توجه به سایر  
اعضاء بویژه گوارش، کبد، مغز و ... بسیار اهمیت دارد.  
(به صورت دوطرفه)

➤ در طب رایج ارتباط رحم با گوارش، کبد، مغز مطرح شده است.  
(امروزه بویژه بحث میکروبیاتا مورد توجه قرار گرفته)

Gut microbiata ➤

Uterus microbiata ➤

Gut-uterus Axis ➤

Brain-uterus connection ➤

Liver-uterus connection ➤

# Brain-uterus connection

## The Brain-Uterus Connection: Brain Derived Neurotrophic Factor (BDNF) and Its Receptor (Ntrk2) Are Conserved in the Mammalian Uterus



Jocelyn M. Wessels<sup>1</sup>, Liang Wu<sup>2</sup>, Nicholas A. Leyland<sup>1</sup>, Hongmei Wang<sup>2</sup>, Warren G. Foster<sup>1\*</sup>

<sup>1</sup>Department of Obstetrics and Gynecology, McMaster University, Hamilton, Ontario, Canada, <sup>2</sup>State Key Laboratory of Reproductive Biology, Institute of Zoology, Chinese Academy of Sciences, Beijing, China

### Abstract

The neurotrophins are neuropeptides that are potent regulators of neurite growth and survival. Although mainly studied in the brain and nervous system, recent reports have shown that neurotrophins are expressed in multiple target tissues and cell types throughout the body. Additionally, dysregulation of neurotrophins has been linked to several disease conditions including Alzheimer's, Parkinson's, Huntington's, psychiatric disorders, and cancer. Brain derived neurotrophic factor (BDNF) is a member of the neurotrophin family that elicits its actions through the neurotrophic tyrosine receptor kinase type 2 (Ntrk2). Together BDNF and Ntrk2 are capable of activating the adhesion, angiogenesis, apoptosis, and proliferation pathways. These pathways are prominently involved in reproductive physiology, yet a cross-species examination of BDNF and Ntrk2 expression in the mammalian uterus is lacking. Herein we demonstrated the conserved nature of BDNF and Ntrk2 across several mammalian species by mRNA and protein sequence alignment, isolated *BDNF* and *Ntrk2* transcripts in the uterus by Real-Time PCR, localized both proteins to the glandular and luminal epithelium, vascular smooth muscle, and myometrium of the uterus, determined that the major isoforms expressed in the human endometrium were pro-BDNF, and truncated Ntrk2, and finally demonstrated antibody specificity. Our findings suggest that BDNF and Ntrk2 are transcribed, translated, and conserved across mammalian species including human, mouse, rat, pig, horse, and the bat.

**Citation:** Wessels JM, Wu L, Leyland NA, Wang H, Foster WG (2014) The Brain-Uterus Connection: Brain Derived Neurotrophic Factor (BDNF) and Its Receptor (Ntrk2) Are Conserved in the Mammalian Uterus. PLoS ONE 9(4): e94036. doi:10.1371/journal.pone.0094036

# The Female Reproductive Axis: Coordination of the Brain, Ovaries & Uterus

Chapter 18 / Lesson 17 [Transcript](#)

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What event does the female reproductive system prepare for every month?

question 1 of 3



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## A Woman's Uterus May Play a Role in Memory and Cognition



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# Gut-uterus Axis

Review

## Estrogen–gut microbiome axis: Physiological and clinical implications



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### ARTICLE INFO

Keywords:

Estrobolome

Phytoestrogen

Dysbiosis

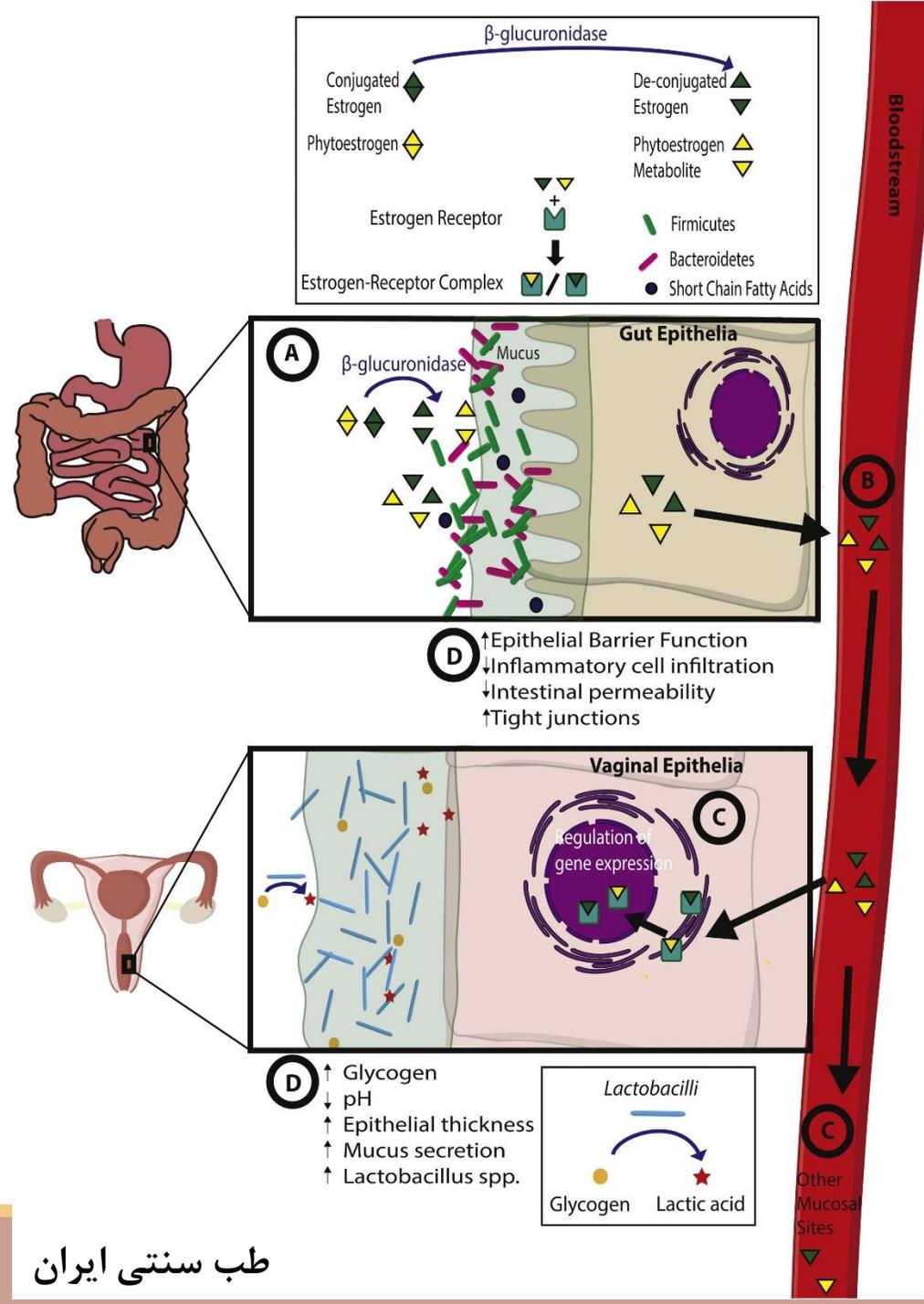
Cancer

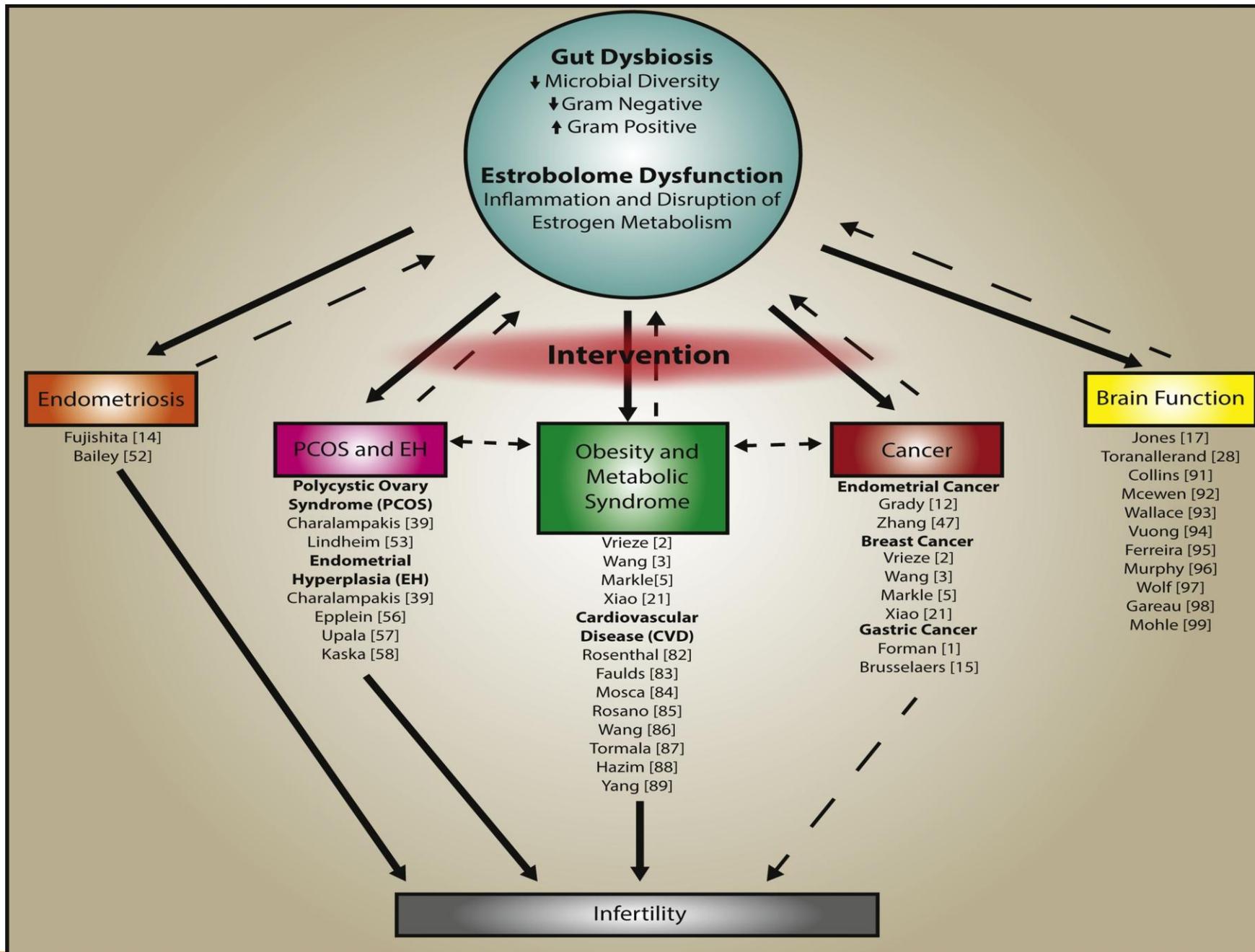
Fertility

### ABSTRACT

Low levels of gonadal circulating estrogen observed in post-menopausal women can adversely impact a diverse range of physiological factors, with clinical implications for brain cognition, gut health, the female reproductive tract and other aspects of women's health. One of the principal regulators of circulating estrogens is the gut microbiome. This review aims to shed light on the role of the gut microbiota in estrogen-modulated disease. The gut microbiota regulates estrogens through secretion of  $\beta$ -glucuronidase, an enzyme that deconjugates estrogens into their active forms. When this process is impaired through dysbiosis of gut microbiota, characterized by

# Gut-uterus Axis





# Estrogen–gut microbiome axis: Physiological and clinical implications

James M. Baker, Layla Al-Nakkash, Melissa M. Herbst-Kralovetz Maturitas

Volume 103 Pages 45-53 (September 2017)

DOI: 10.1016/j.maturitas.2017.06.025

Dysbiosis and a reduction of gut microbiota diversity impacts the estrobolome, which may lead to a wide range of disease states, illustrated. Reduction in gut microbiome diversity as result of dysbiosis and inflammation reduces the  $\beta$ -glucuronidase activity. This reduced  $\beta$ -glucuronidase activity results in decreased deconjugation of estrogen and phytoestrogen into their circulating and active forms. The subsequent decrease in circulating estrogens alters estrogen receptor activations which may lead to the hypoestrogenic pathologies: obesity, metabolic syndrome, CVD and cognitive decline. Hyperestrogenic pathologies can also be driven by the estrobolome through the increased abundance of  $\beta$ -glucuronidase-producing bacteria, which leads to elevates levels of circulating estrogens to drive diseases such as endometriosis and cancer. Obesity/metabolic syndrome can impact other disease states such including PCOS, EH and ultimately fertility. Intervention: Bariatric surgery, metformin and FMT provide therapeutic interventions that can mitigate the associated disease state through modulation of the gut microbiota composition. Solid arrows indicate the established interaction between estrobolome and disease states; dashed arrows indicate putative feedback mechanisms or interactions.



## **A Review of the Gut-Uterine Axis in Persian Medicine Literature: Implications in Polycystic Ovary Syndrome**

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**Received:** 29 Nov 2019

**Revised:** 28 Jan 2020

**Accepted:** 7 Feb 2020

### **Abstract**

Persian medicine (PM) takes a holistic approach towards diagnosis and management of disease states, focusing on the connections between body systems and organs. Menstrual disorders are of utmost importance in women, as they may lead to dysfunctions in other body systems. Deeming a mutual relationship between the gastrointestinal and female reproductive systems, PM physicians believed in a *gut-uterine* axis to exist. *Ehtebas-e Tams* (ET), meaning menstru-

# Liver-uterus connection

## Why Is Liver Health Important for Endometriosis?



MAY 10, 2018



BY JESSICA DUFFIN

IN COLUMNS, LIVING WITH ENDO- A COLUMN BY JESSICA DUFFIN.

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# *How to Optimize Liver Function to Rebalance Hormones in Women*

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