Casual Friday Series

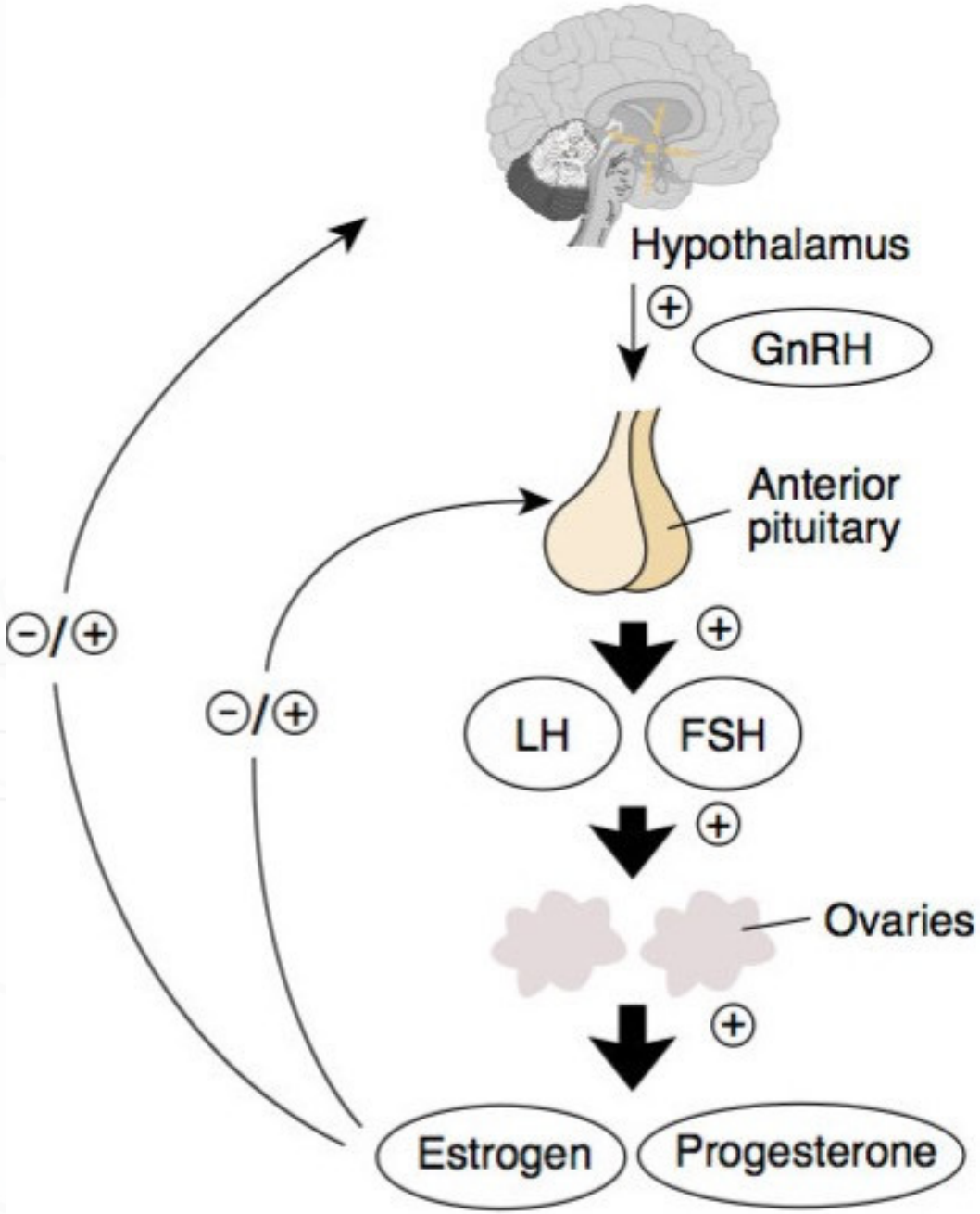
Working Through Menopause, Part 3

A Biogenetix Clinical Presentation

BIOGENETIX.COM

Disclaimer

- *Information in this presentation is not intended, in itself, to diagnose, treat, reverse, cure, or prevent any disease. While this presentation is based on medical literature, findings, and text, The following statements have not been evaluated by the FDA.*
- *The information provided in this presentation is for your consideration only as a practicing health care provider. Ultimately you are responsible for exercising professional judgment in the care of your own patients.*



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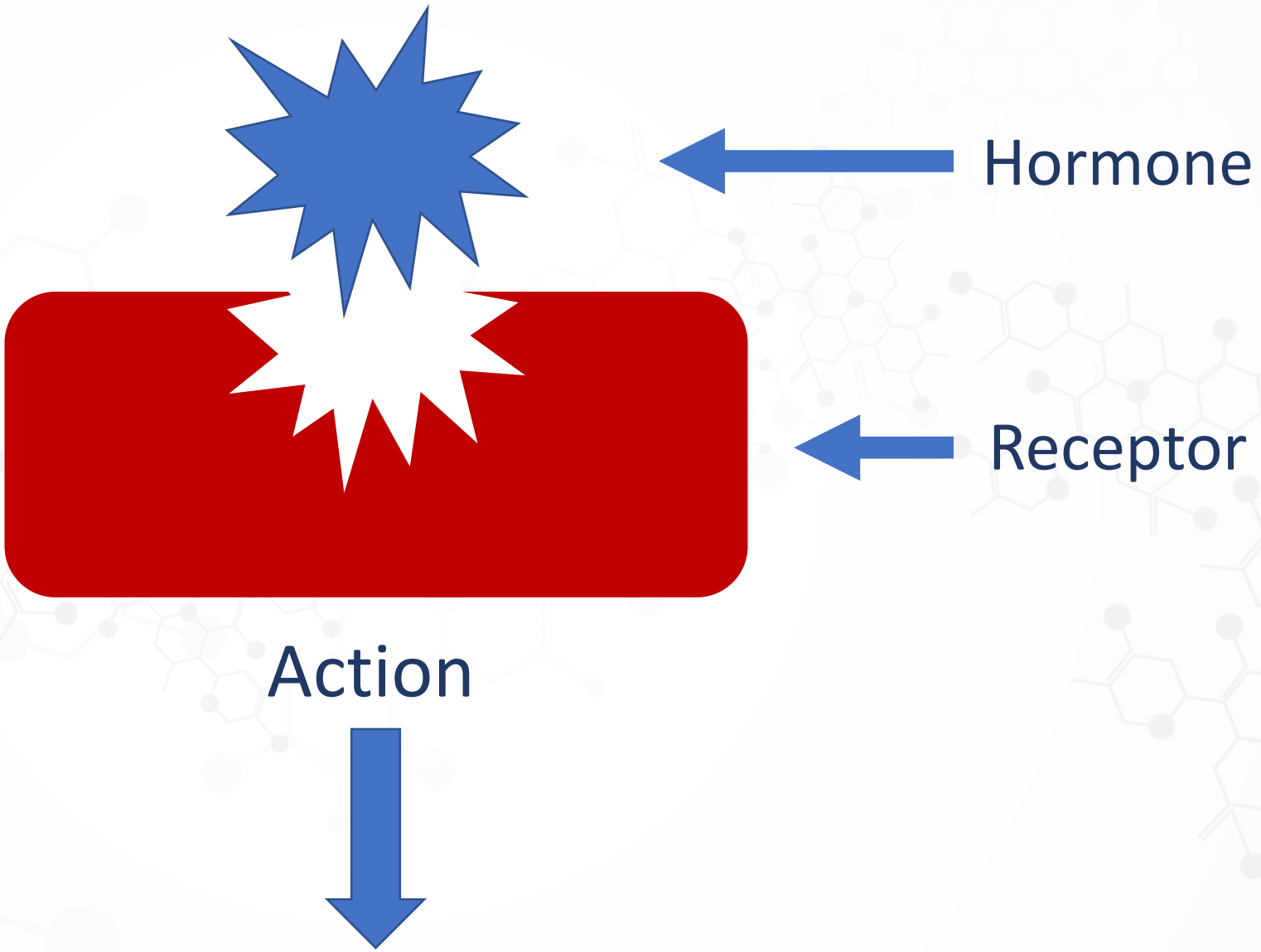
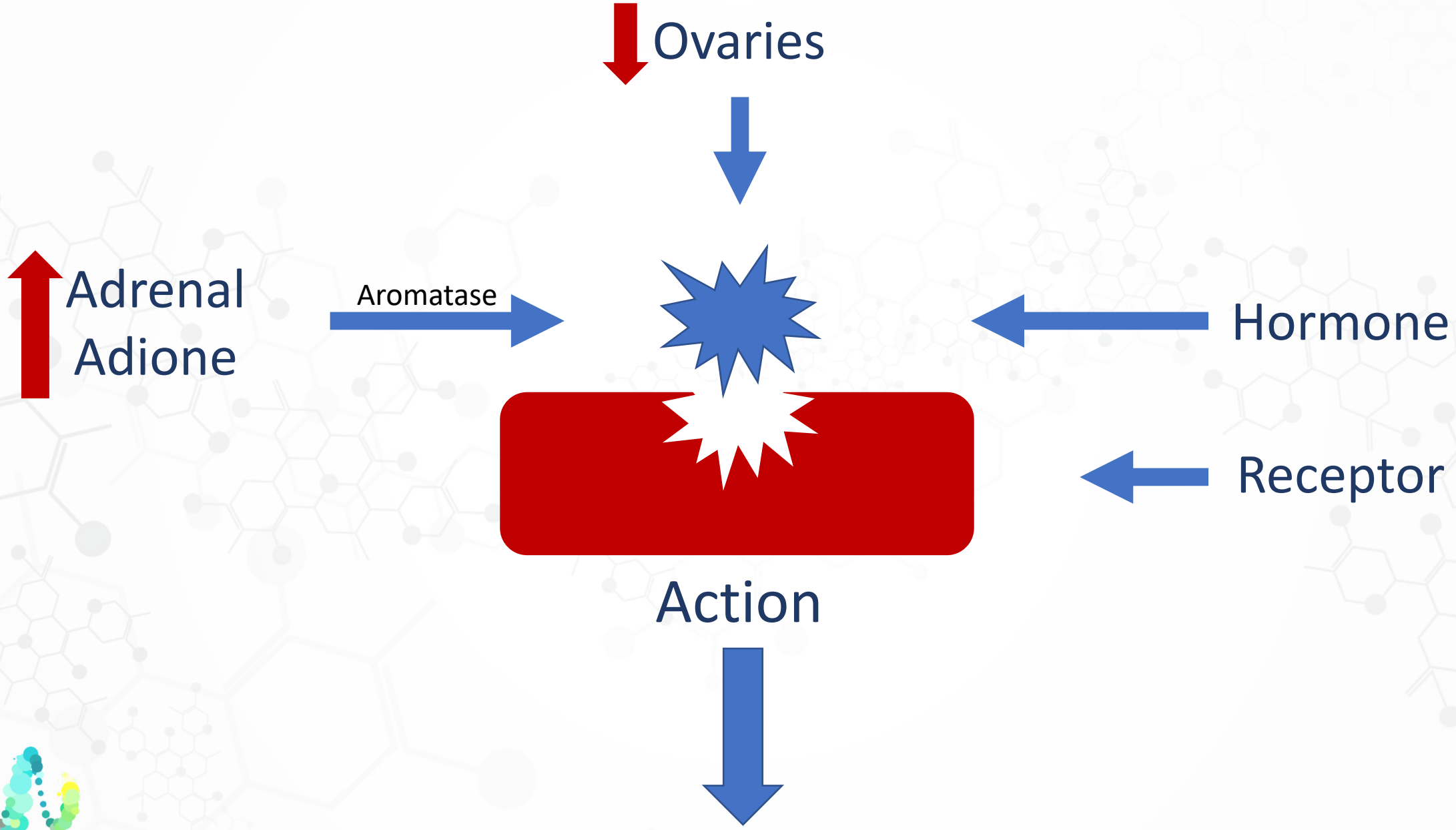
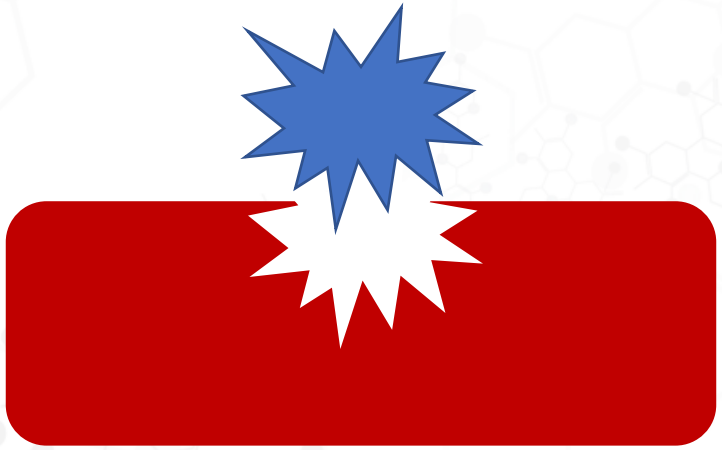

Hormone
Receptor
Action

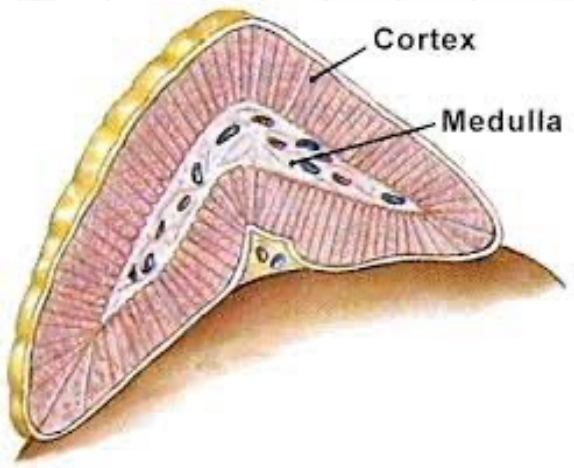

Ovaries
Adrenal
Adione
Aromatase
Hormone
Receptor
Action

3 Options for intervention:

replace

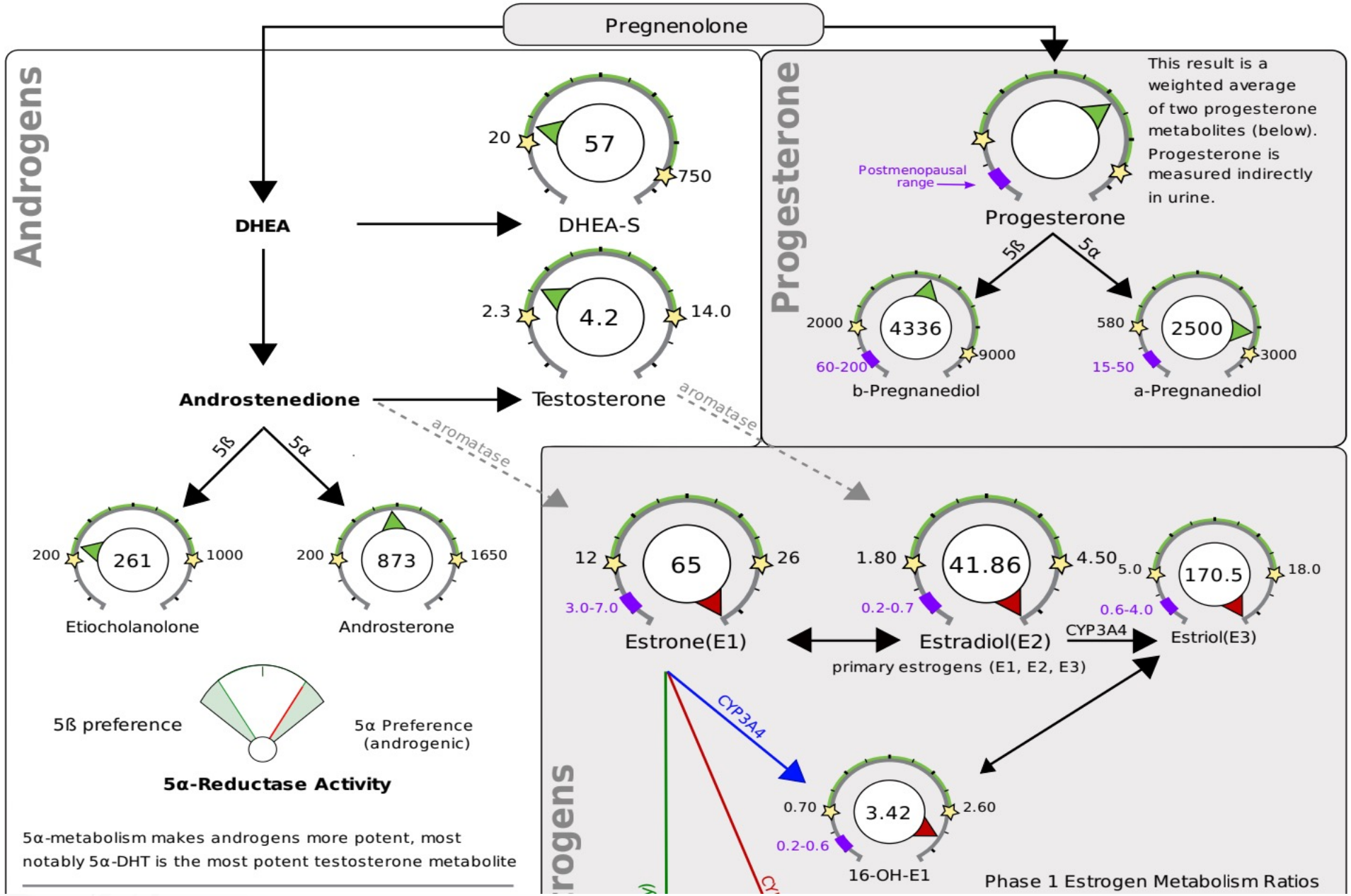


sensitize



support

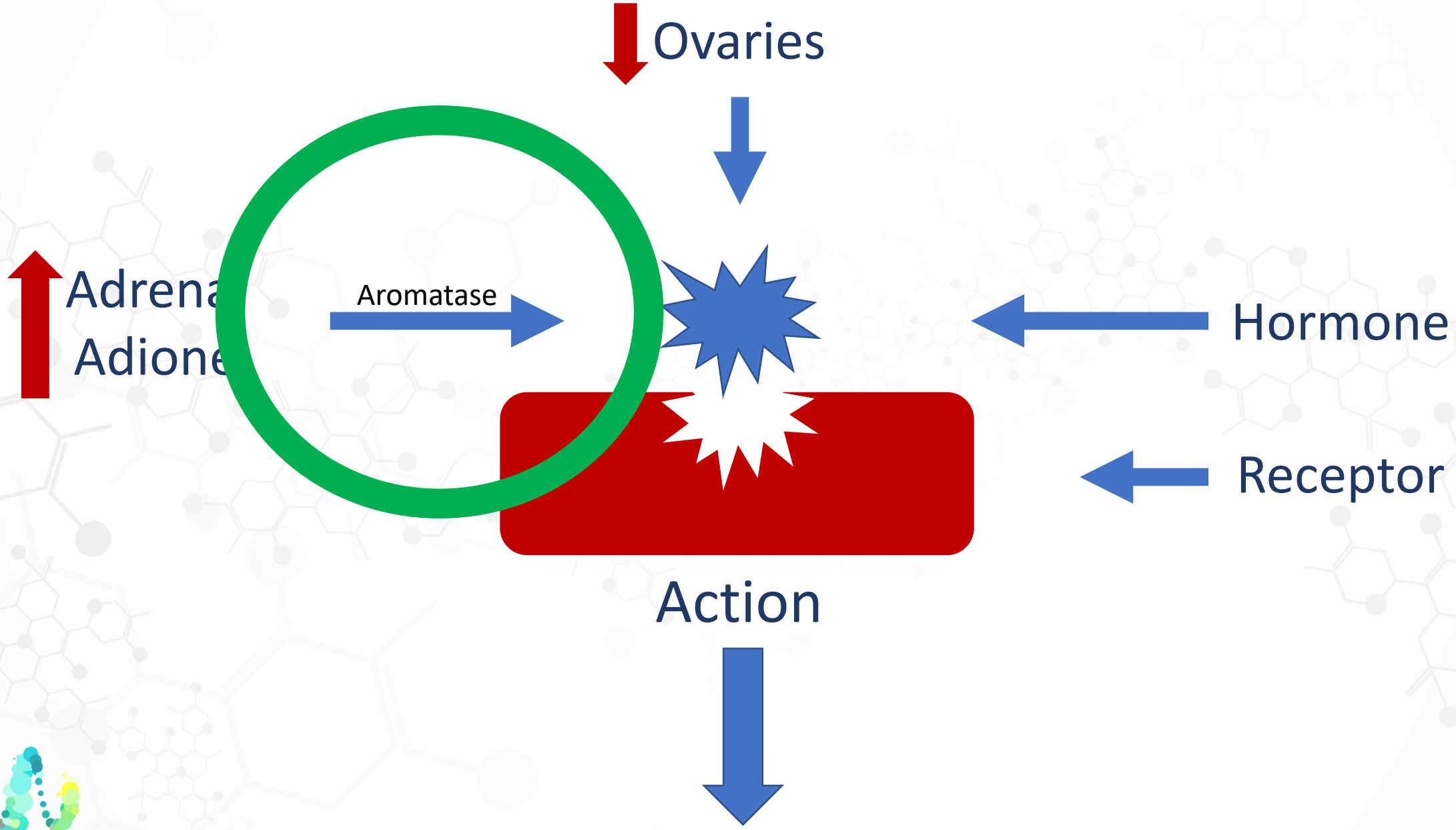
1

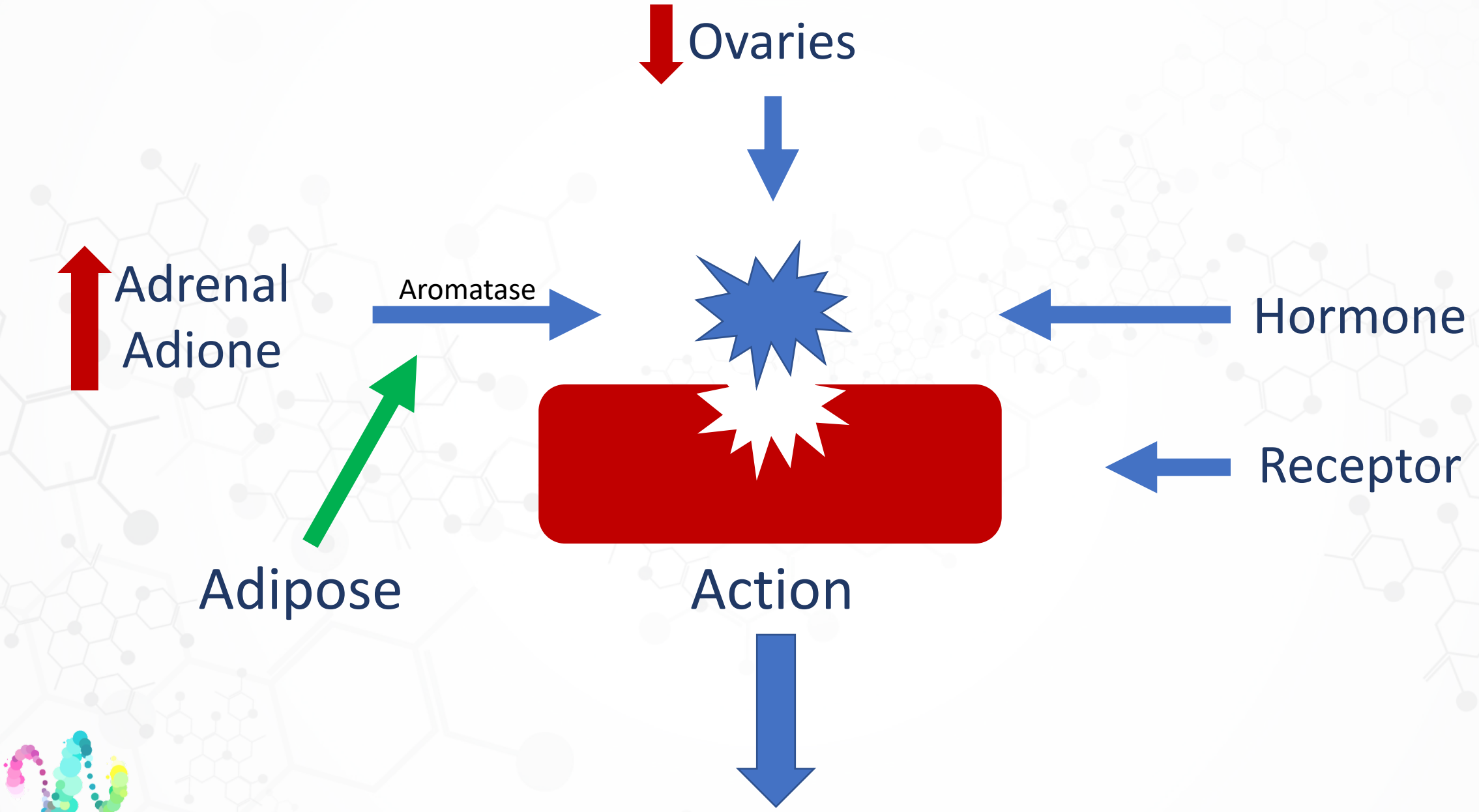

Pregnenolone
Androgens
DHEA
20
57
750
DHEA-S
2.3
4.2
14.0
Androstenedione
Testosterone
aromatase
aromatase
5ß
5α
200
261
1000
Etiocholanolone
200
873
1650
Androsterone
5ß preference
5α Preference (androgenic)
5α-Reductase Activity
5α-metabolism makes androgens more potent, most notably 5α-DHT is the most potent testosterone metabolite
Progesterone
This result is a weighted average of two progesterone metabolites (below). Progesterone is measured indirectly in urine.
Postmenopausal range
Progesterone
5ß
5α
2000
4336
9000
60-200
b-Pregnanediol
580
2500
3000
15-50
a-Pregnanediol
12
65
26
3.0-7.0
Estrone(E1)
1.80
41.86
4.50
0.2-0.7
Estradiol(E2)
CYP3A4
5.0
170.5
18.0
0.6-4.0
Estriol(E3)
primary estrogens (E1, E2, E3)
CYP3A4
0.70
3.42
2.60
0.2-0.6
16-OH-E1
Phase 1 Estrogen Metabolism Ratios

1. Decreasing ovarian function
   → decreasing estrogen, progesterone
2. Increasing adrenal function
   → increased cortisol
   → increased DHEA
   → increased androstenedione

"increased estrogenicity." How? Aromatization and the awakening of body fat.

3. Cortisol-stimulated centralization of body fat
4. Shift from global to localized estrogenic activity


Ovaries
Adrena
Adione
Aromatase
Hormone
Receptor
Action


Ovaries
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Aromatase
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Adipose
Action

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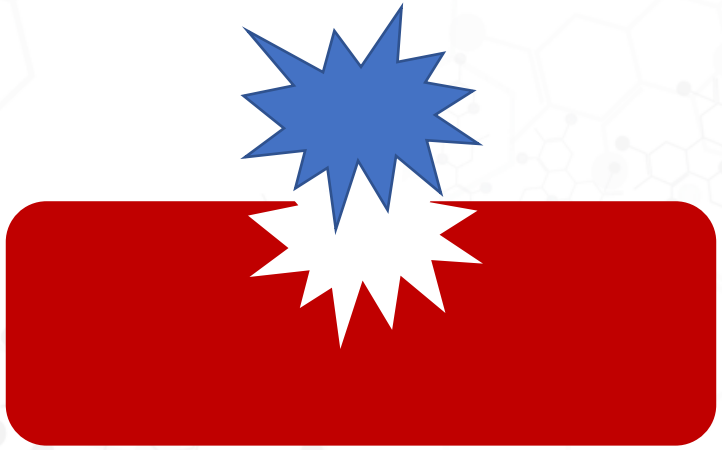

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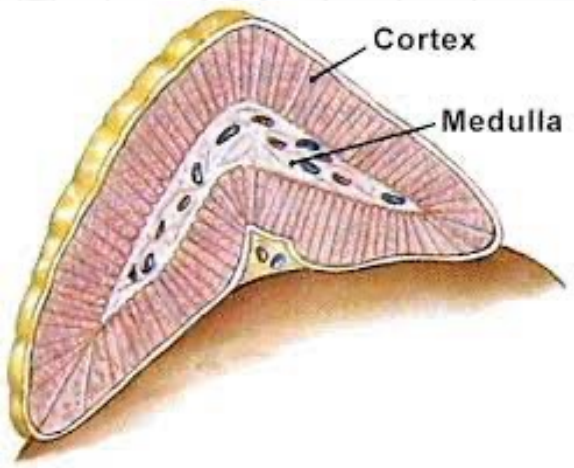
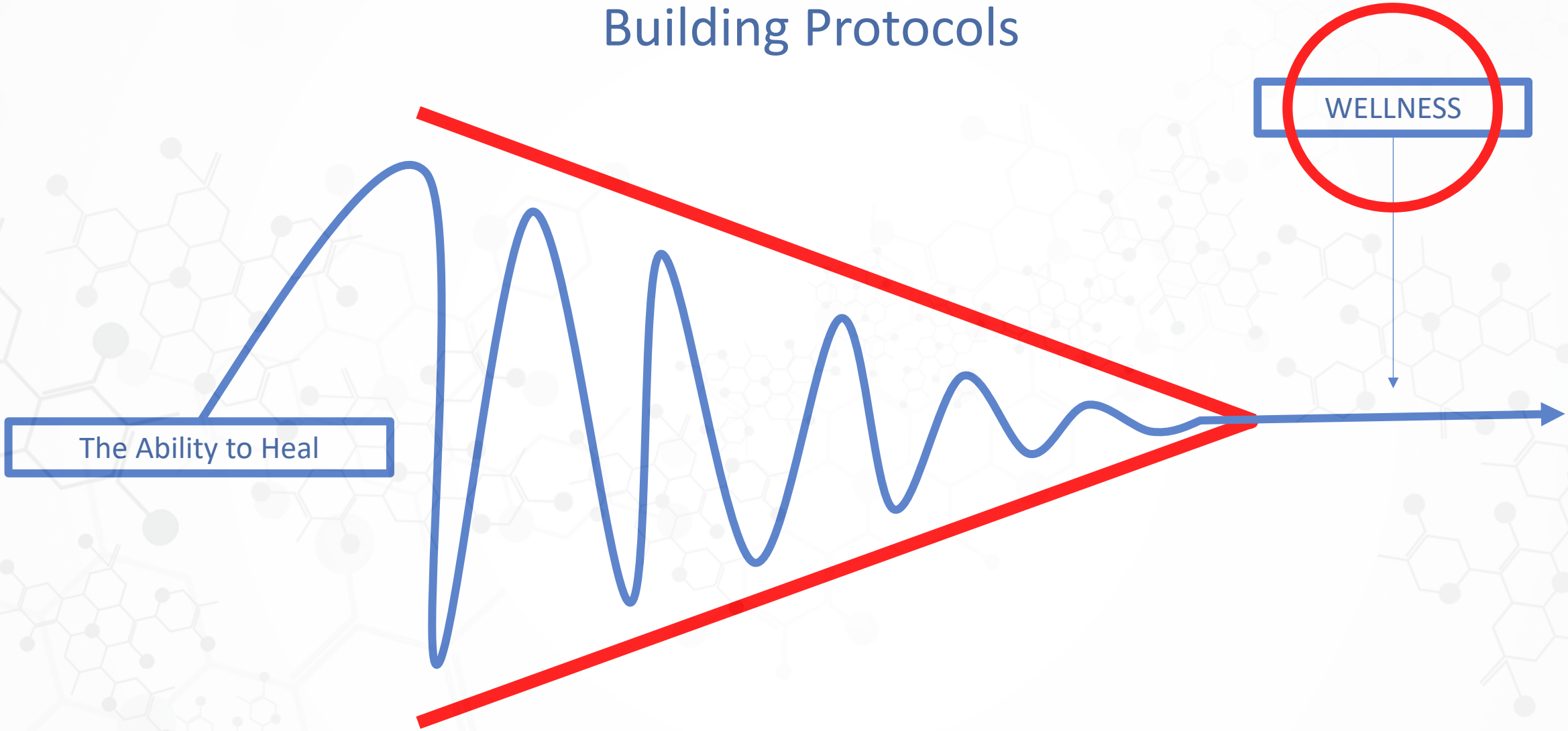


support

Building Protocols



National Heart, Lung, and Blood Institute

Women's Health Initiative (WHI)

Project began
1991

The Women's Health Initiative (WHI), sponsored by the National Heart, Lung, and Blood Institute (NHLBI), is a long-term national health study that focuses on strategies for preventing heart disease, breast and colorectal cancer, and osteoporosis in postmenopausal women. These chronic diseases are the major causes of death, disability, and frailty in older women of all races and socioeconomic backgrounds.

The original WHI study had three parts—a clinical trial, an observational study, and a community prevention study—and completed data collection in 2005. The WHI continues to contribute to the science of women's health through extension and ancillary studies.

WHI extension studies collect long-term data from WHI participants to complement the original WHI study. The current extension study is collecting annual health information from consenting WHI participants through 2020, focusing on cardiovascular events and aging.

https://www.whi.org/papers

MedGenMed Ob/Gyn & Women's Health

Use of Combination Hormone Replacement Therapy in Light of Recent Data From the Women's Health Initiative

DISCLOSURES

In this large-scale, randomized, controlled clinical trial, 16,608 menopausal women who were 50-79 years of age and who had an intact uterus at the time of enrollment were randomized to receive either HRT in the form of 0.625 mg conjugated equine estrogens and 2.5 mg medroxyprogesterone acetate (*Prempro*) or placebo. Use of study medication (active or placebo) in this component of the trial was halted after 5.2 years, because researchers found that the therapy's risks outweighed its benefits. Compared with the placebo users, those assigned to the combination HRT group experienced more strokes, heart attacks, blood clots, and an increased risk of invasive breast cancer. Although the HRT users also experienced a reduced risk of colorectal cancer and fractures (including hip fractures), overall, the observed risks outweighed these benefits. It should be noted that the arm of the trial that is evaluating the risks and benefits of unopposed 0.625 conjugated equine estrogens (*Premarin*) in hysterectomized women is ongoing, with results expected in 2005.

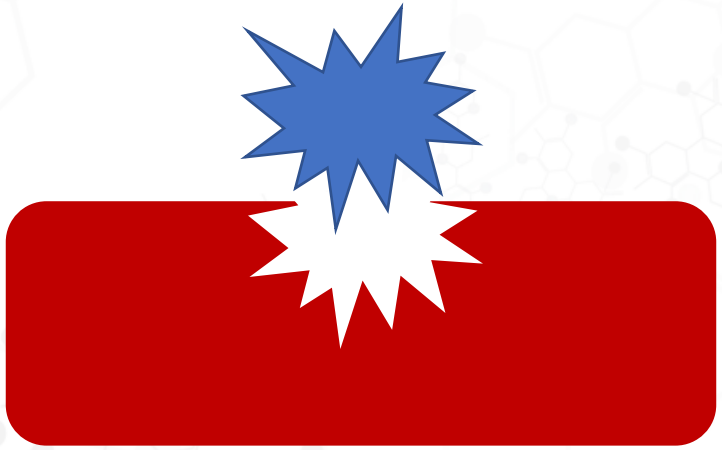
Randomized Controlled Trial > JAMA. 2013 Oct 2;310(13):1353-68.
doi: 10.1001/jama.2013.278040.

Menopausal hormone therapy and health outcomes during the intervention and extended poststopping phases of the Women's Health Initiative randomized trials

Conclusions and relevance: Menopausal hormone therapy has a complex pattern of risks and benefits. Findings from the intervention and extended postintervention follow-up of the 2 WHI hormone therapy trials do not support use of this therapy for chronic disease prevention, although it is appropriate for symptom management in some women.

3 Options for intervention:

replace



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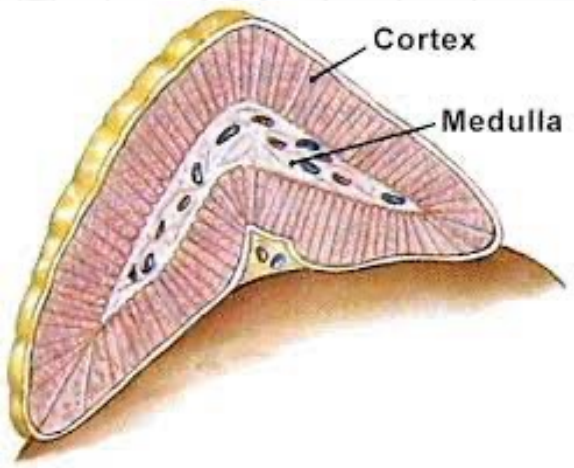

support

Int J Biomed Sci. 2006 Dec; 2(4): 375–394.

PMCID: PMC3614644

PMID: 23675006

Hormone-Balancing Effect of Pre-Gelatinized Organic Maca (Lepidium peruvianum Chacon): (III) Clinical responses of early-postmenopausal women to Maca in double blind, randomized, Placebo-controlled, crossover configuration, outpatient study

H. O. Meissner,[1] A. Mscisz,[2] H. Reich-Bilinska,[3] P. Mrozikiewicz,[2] T. Bobkiewicz-Kozlowska,[4] B. Kedzia,[2] A. Lowicka,[2] and I. Barchia[5]

This is the second, conclusive part of the clinical study on clinical responses of early-postmenopausal women to standardized doses of pre-Gelatinized Organic Maca (Maca-GO). Total of 34 Caucasian women volunteers participated in a double-blind, randomized, four months outpatient crossover configuration Trial. After fulfilling the criteria of being early-postmenopausal: blood Estrogen (E2<40 pg/ml) and Follicle Stimulating Hormone (FSH>30 IU/ml) at admission, they were randomly allocated to Placebo (P) and Maca-GO (M) treatments (2 groups of 11 participants each). Two 500 mg vegetable hard gel capsules with Maca-GO or Placebo powder were self-administered twice daily with meals (total 2 g/day). At admission and follow-up monthly intervals, body mass index (BMI), blood pressure, levels of gonadal, pituitary, thyroid and adrenal hormones, lipids and key minerals were measured. Bone markers were determined after four months M and P use in 12 participants. Menopausal symptoms were assessed according to Greene's Score (GMS) and Kupperman's Index (KMI). Data were analyzed using multivariate

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matrices. Two months application of Maca-GO stimulated ($P<0.05$) production of E2, suppressed ($P<0.05$) blood FSH, Thyroid (T3) and Adrenocorticotropic hormones, Cortisol, and BMI, increased ($P<0.05$) low density lipoproteins, blood Iron and alleviated ($P<0.001$) menopausal symptoms. Maca-GO noticeably increased bone density markers. In conclusion, Maca-GO applied to early-postmenopausal women (i) acted as a toner of hormonal processes along the Hypothalamus-Pituitary-Ovarian axis, (ii) balanced hormone levels and (iii) relieved symptoms of menopausal discomfort, (hot flushes and night sweating in particular), thus, (iv) exhibited a distinctive function peculiar to adaptogens, providing an alternative non-hormonal plant option to reduce dependence on hormone therapy programs (HRT).

What we have found:

1. Handle inflammation without suppressing it.
2. Conservatively, look to weight management.
3. Symptomatic?
    - Support adrenals with adaptogens
    - Focus on receptor site sensitivity
    - Keep detox pathways functional
4. If hormones are necessary, Bioidentical.
5. HRT provides symptomatic relief, not ideal for chronic disease prevention or management.

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