

Casual Friday Series

Immune Boost? When and why...Part 1

A Biogenetix Clinical Presentation

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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.*





Lifestyle + Genetics = Chronic Health IMPROVEMENT



Back in the Day: TH1 vs TH2

Intracellular

TH1

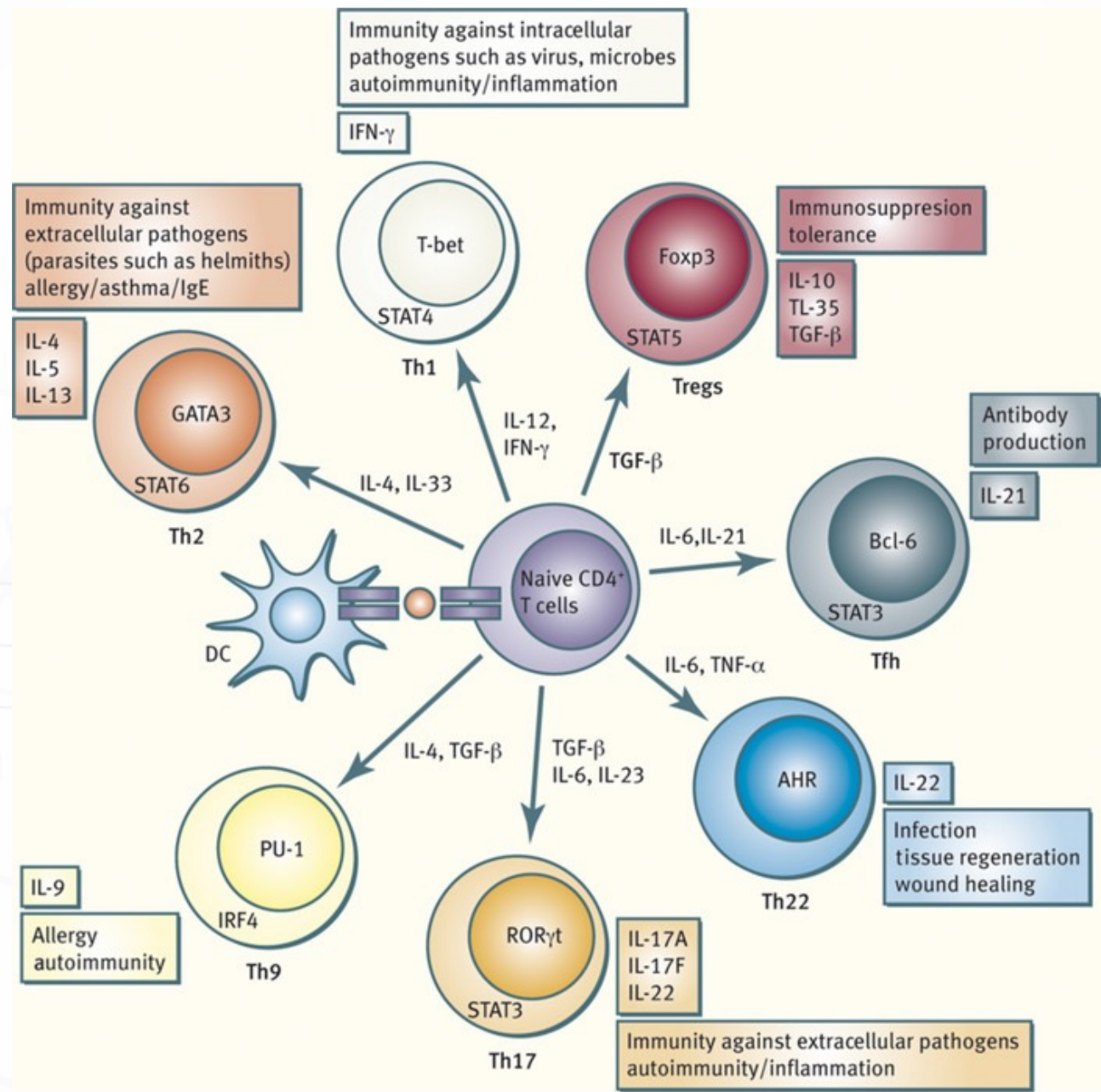
- Multiple sclerosis
- Hashimoto's
- Grave's
- Rheumatoid arthritis
- Lyme arthritis
- Psoriatic arthritis
- Contact dermatitis
- Type 1/1.5 diabetes
- Erythema nodosum
- Frequent spontaneous abortion
- Psoriasis
- Primary biliary cirrhosis
- Pulmonary sarcoidosis
- Crohn's disease
- Inflammatory bowel disease
- Etc.

Extracellular

TH2

- Asthma
- Atopic dermatitis
- Conjunctivitis
- Hyper eosinophilia
- Allergies
- Normal pregnancy
- Systemic lupus erythematosus
- Sclera derma
- Etc.





Review > [Cell Mol Immunol](#). 2010 May;7(3):182-9. doi: 10.1038/cmi.2010.22.

Epub 2010 Apr 12.

The cytokine milieu in the interplay of pathogenic Th1/Th17 cells and regulatory T cells in autoimmune disease

Stewart Leung¹, Xuebin Liu, Lei Fang, Xi Chen, Taylor Guo, Jingwu Zhang

Affiliations + expand

PMID: 20383174 PMCID: [PMC4002916](#) DOI: [10.1038/cmi.2010.22](#)



REVIEW ARTICLE

Front. Immunol., 31 March 2017 | <https://doi.org/10.3389/fimmu.2017.00254>



Cellular and Molecular Dynamics of Th17 Differentiation and its Developmental Plasticity in the Intestinal Immune Response

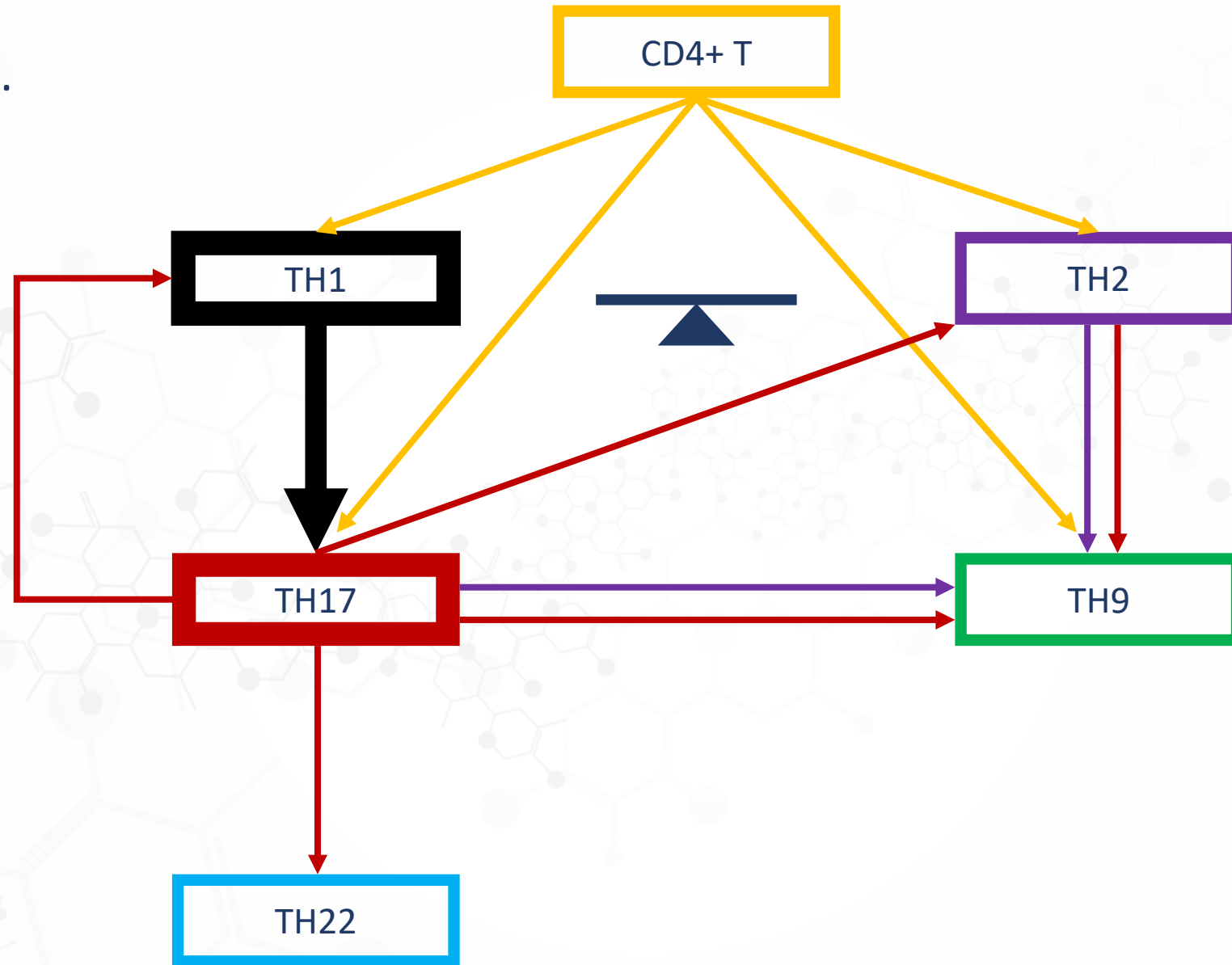
 Suniti Bhaumik¹ and  Rajatava Basu^{2*}

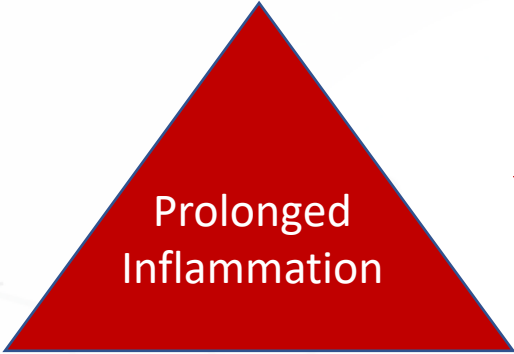
¹Division of Anatomic Pathology, Department of Pathology, University of Alabama at Birmingham (UAB), Birmingham, AL, USA

²Division of Molecular and Cellular Pathology, Department of Pathology, University of Alabama at Birmingham (UAB), Birmingham, AL, USA

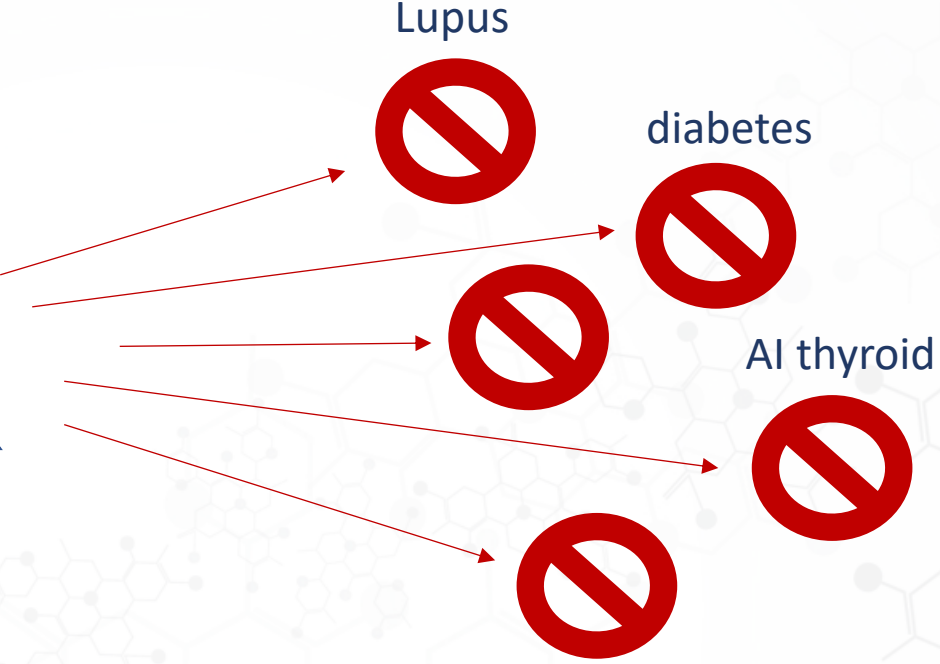


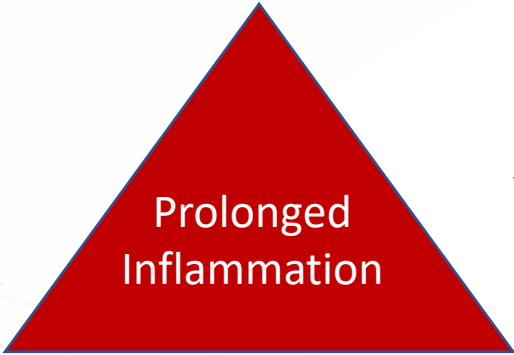
An up-to-date understanding...





Lifestyle:
Food allergies
mold
LPS
Blood Sugar Balance
Alcohol
Infections, etc.





Lupus

diabetes

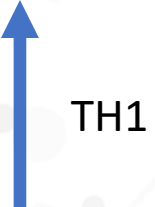
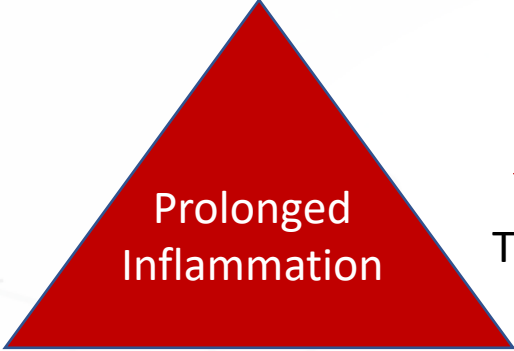
AI thyroid



TH1

- Lifestyle:
- Food allergies
- mold
- LPS
- Blood Sugar Balance
- Alcohol
- Infections, etc.





- Lifestyle:
- Food allergies
- mold
- LPS
- Blood Sugar Balance
- Alcohol
- Infections, etc.

TH17



Lupus



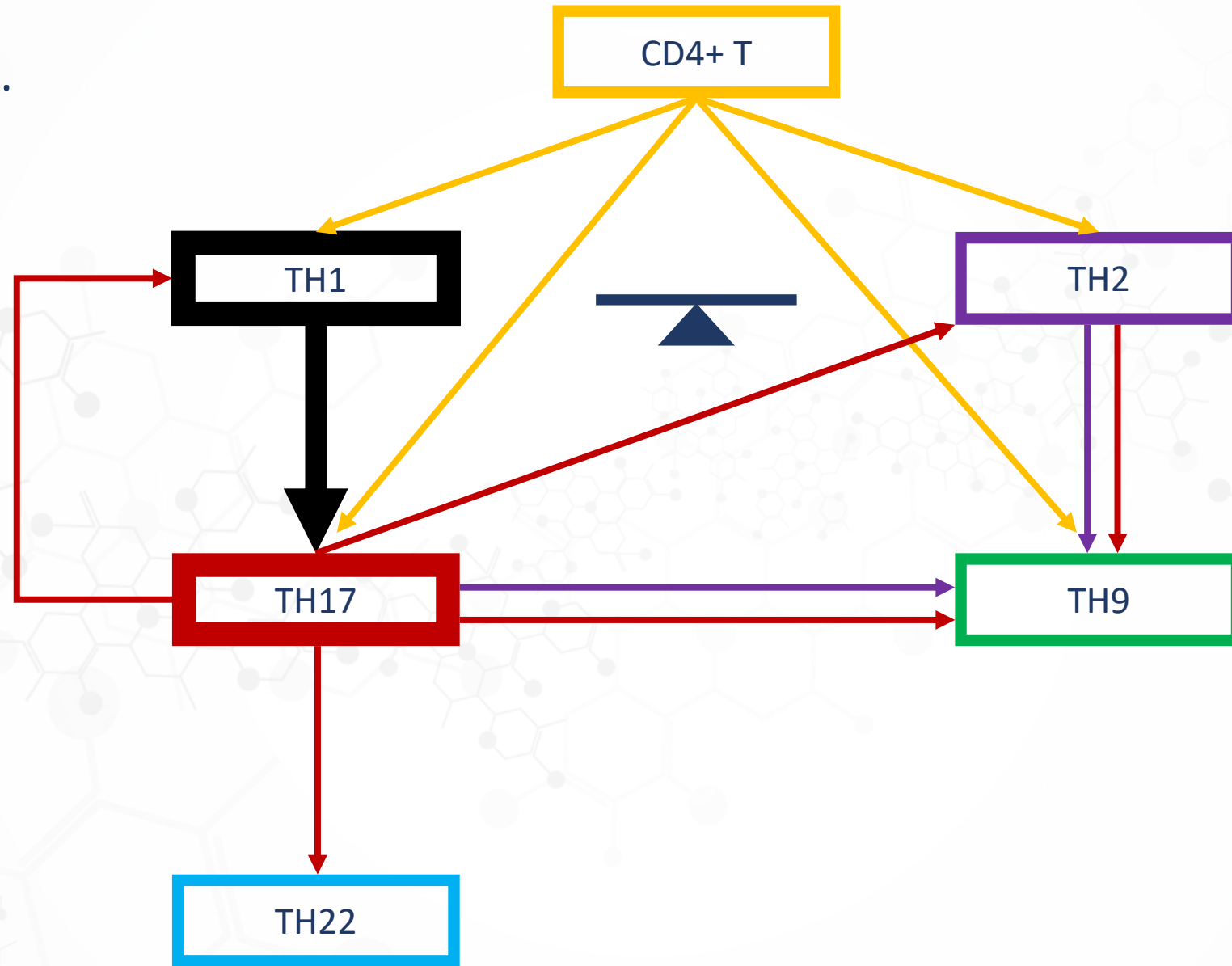
diabetes



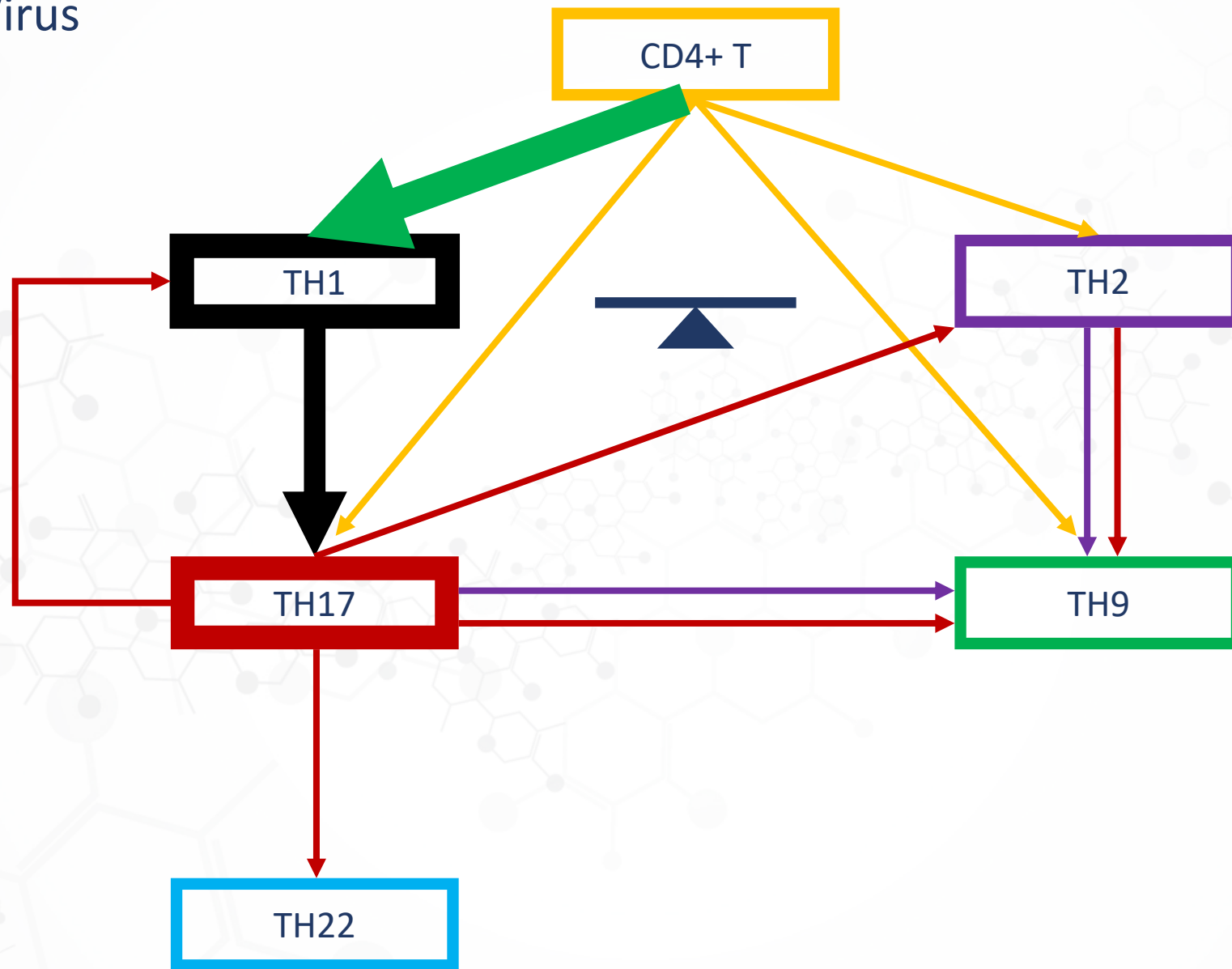
AI thyroid



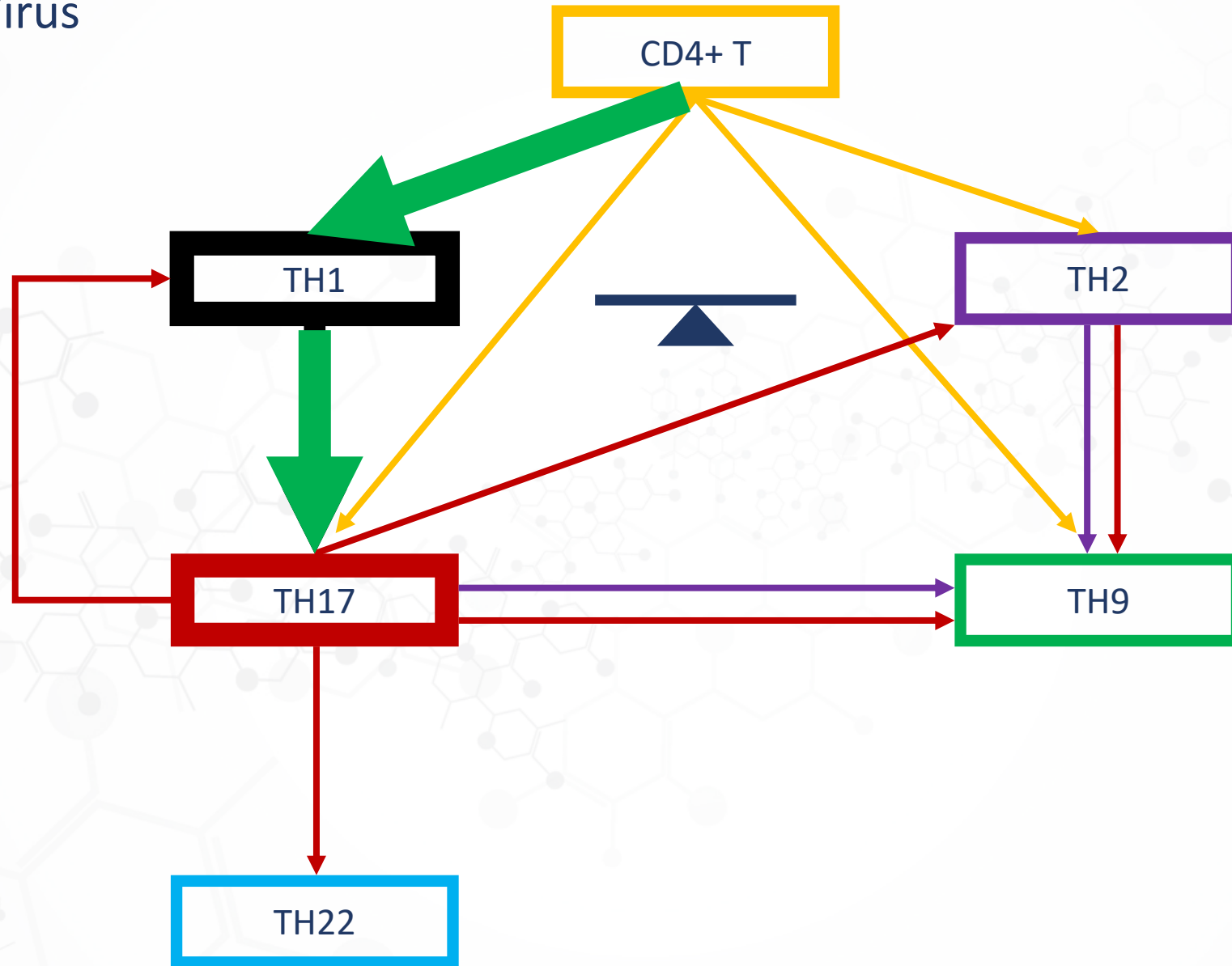
An up-to-date understanding...



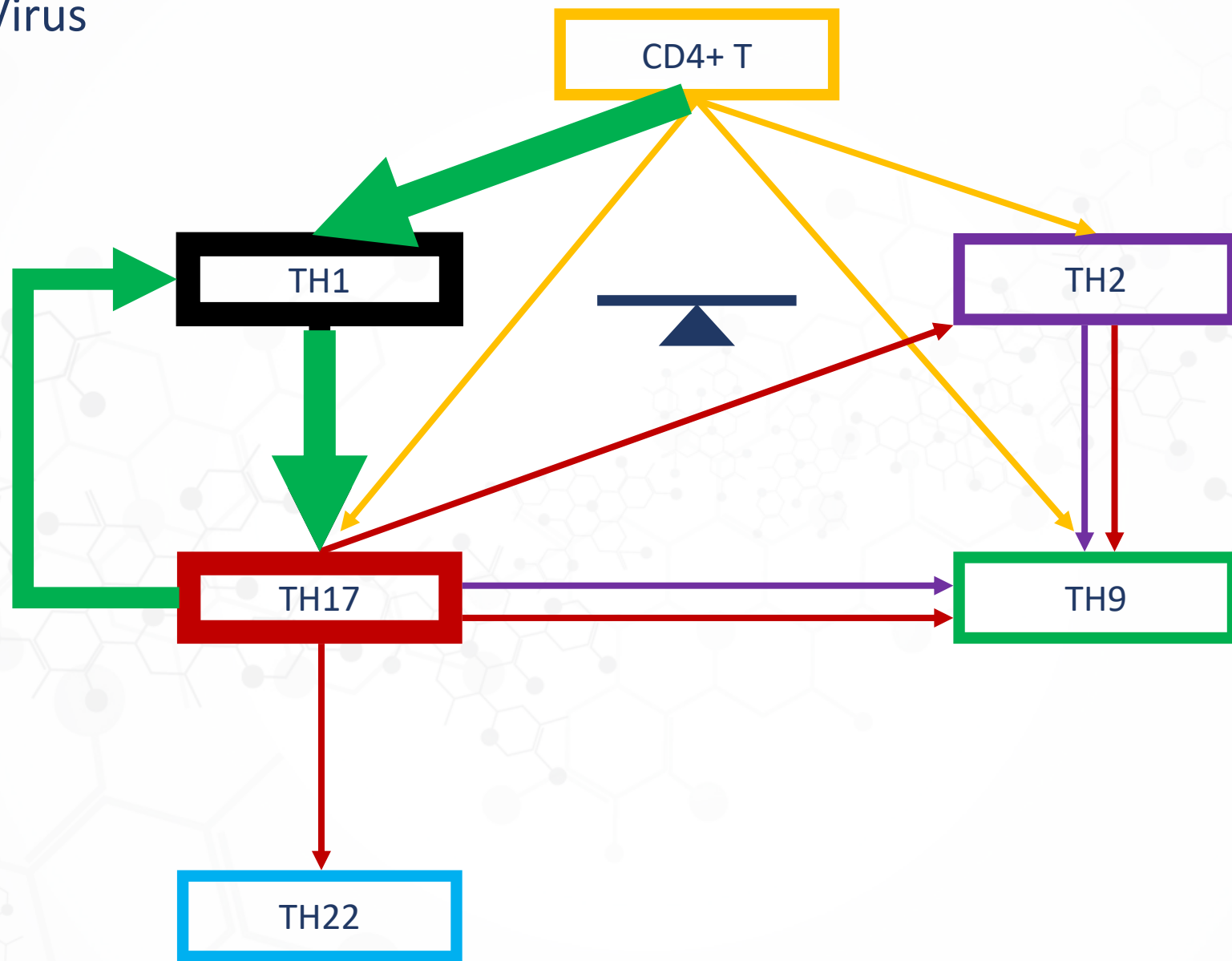
BBV – Big Bad Virus



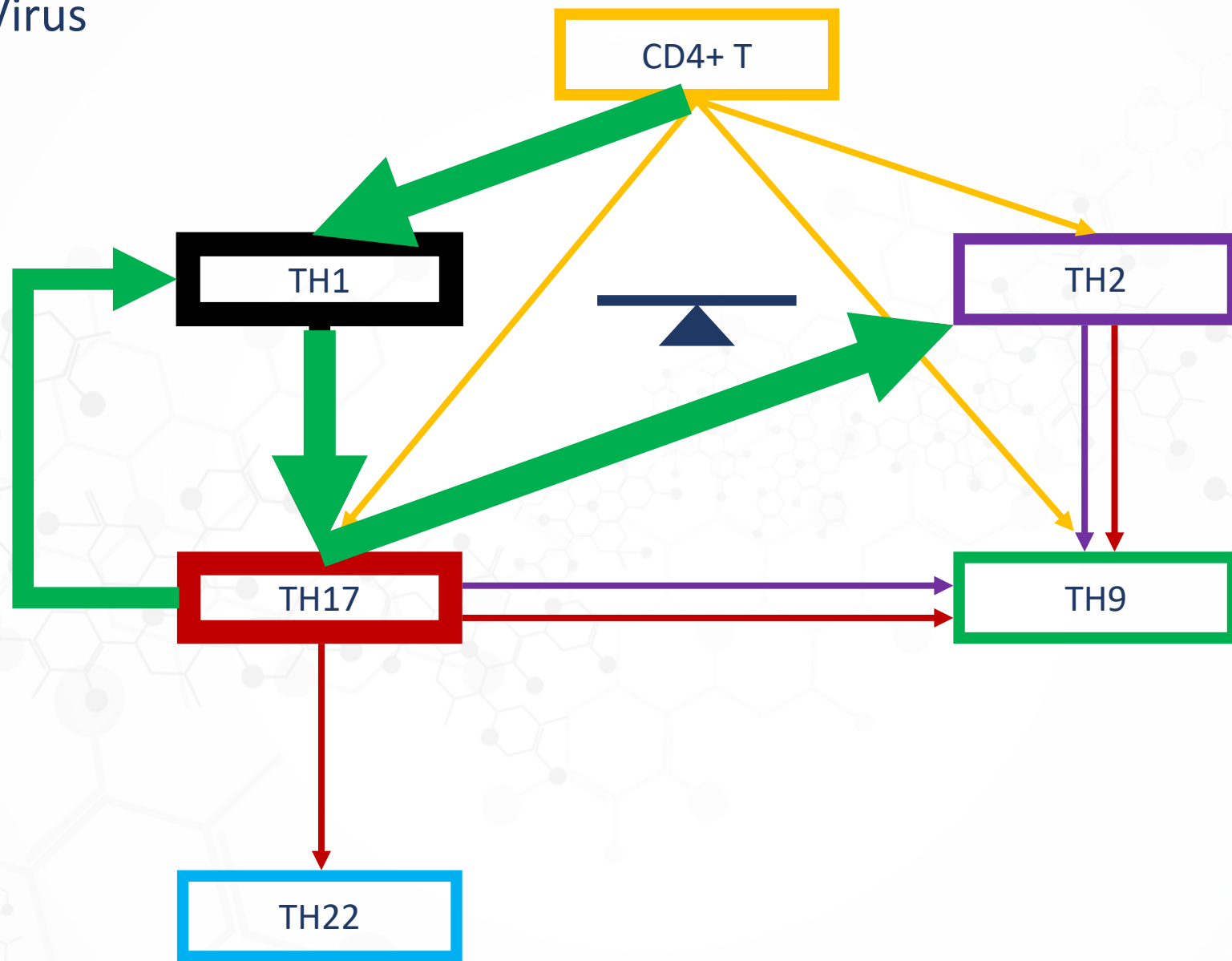
BBV – Big Bad Virus



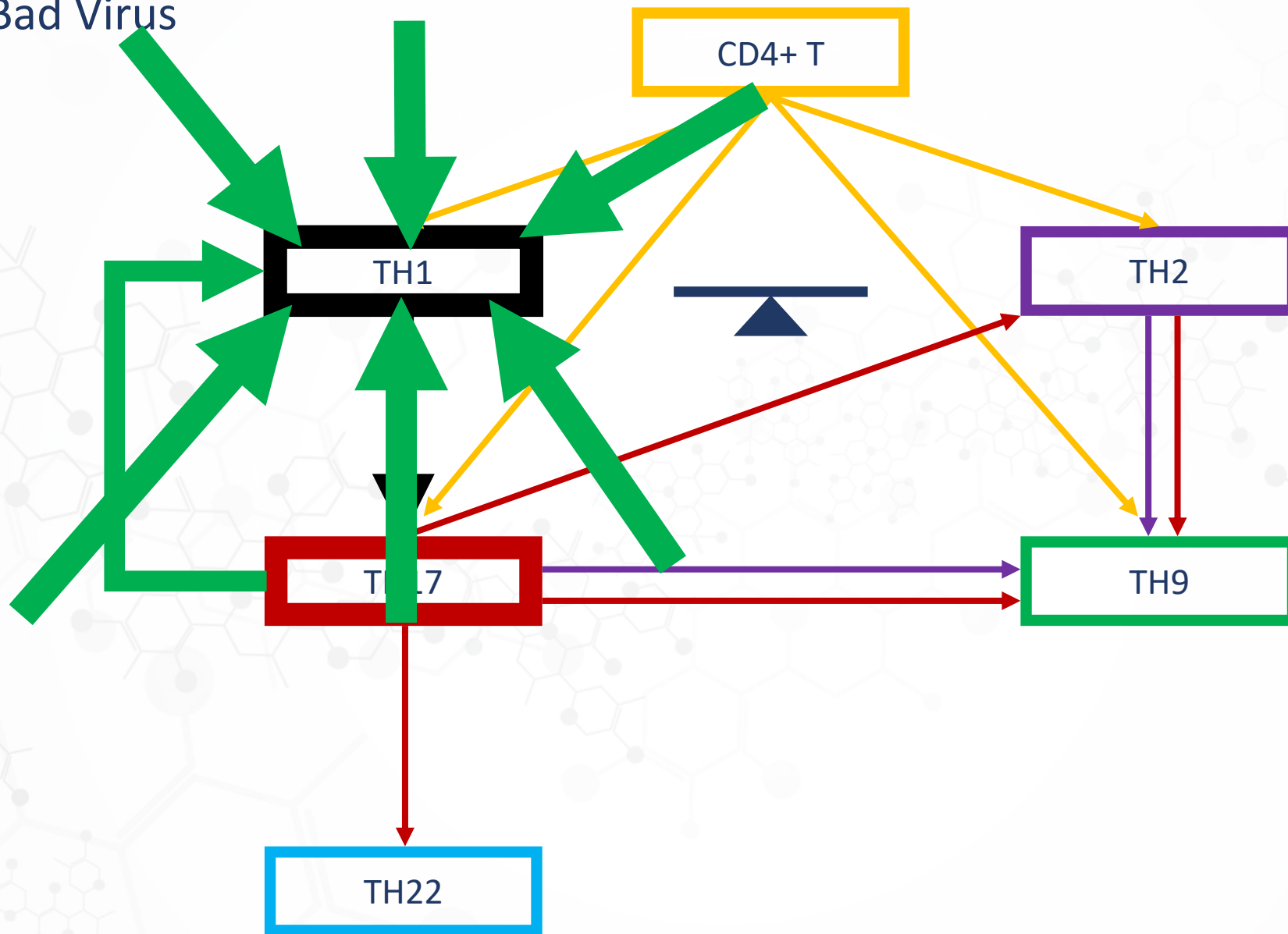
BBV – Big Bad Virus



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BBV – Big Bad Virus



> [Clin Exp Immunol.](#) 1999 Apr;116(1):28-32. doi: 10.1046/j.1365-2249.1999.00870.x.

Immunomodulation by vitamin B12: augmentation of CD8+ T lymphocytes and natural killer (NK) cell activity in vitamin B12-deficient patients by methyl-B12 treatment

J Tamura ¹, K Kubota, H Murakami, M Sawamura, T Matsushima, T Tamura, T Saitoh, H Kurabayshi, T Naruse

Affiliations + expand

PMID: 10209501 PMCID: [PMC1905232](#) DOI: [10.1046/j.1365-2249.1999.00870.x](#)



ORIGINAL RESEARCH article

Front. Immunol., 29 September 2017 | <https://doi.org/10.3389/fimmu.2017.01239>



Glutathione Fine-Tunes the Innate Immune Response toward Antiviral Pathways in a Macrophage Cell Line Independently of Its Antioxidant Properties

 Marina Diotallevi¹,  Paola Checconi²,  Anna Teresa Palamara^{2,3},  Ignacio Celestino³,  Lucia Coppo⁴,  Arne Holmgren⁴,  Kahina Abbas⁵,  Fabienne Peyrot^{5,6},  Manuela Mengozzi¹ and  Pietro Ghezzi^{1*}

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⁶ESPE of Paris, Paris Sorbonne University, Paris, France



[J Investig Med.](#) Author manuscript; available in PMC 2012 Aug 1.

Published in final edited form as:

[J Investig Med.](#) 2011 Aug; 59(6): 881–886.

doi: [10.231/JIM.0b013e31821b8755](https://doi.org/10.231/JIM.0b013e31821b8755)

PMCID: PMC3166406

NIHMSID: NIHMS291217

PMID: [21527855](https://pubmed.ncbi.nlm.nih.gov/21527855/)

Vitamin D and the Immune System

[Cynthia Aranow, MD](#), Investigator



[Nutrients](#). 2017 Nov; 9(11): 1211.

Published online 2017 Nov 3. doi: [10.3390/nu9111211](https://doi.org/10.3390/nu9111211)

PMCID: PMC5707683

PMID: [29099763](https://pubmed.ncbi.nlm.nih.gov/29099763/)

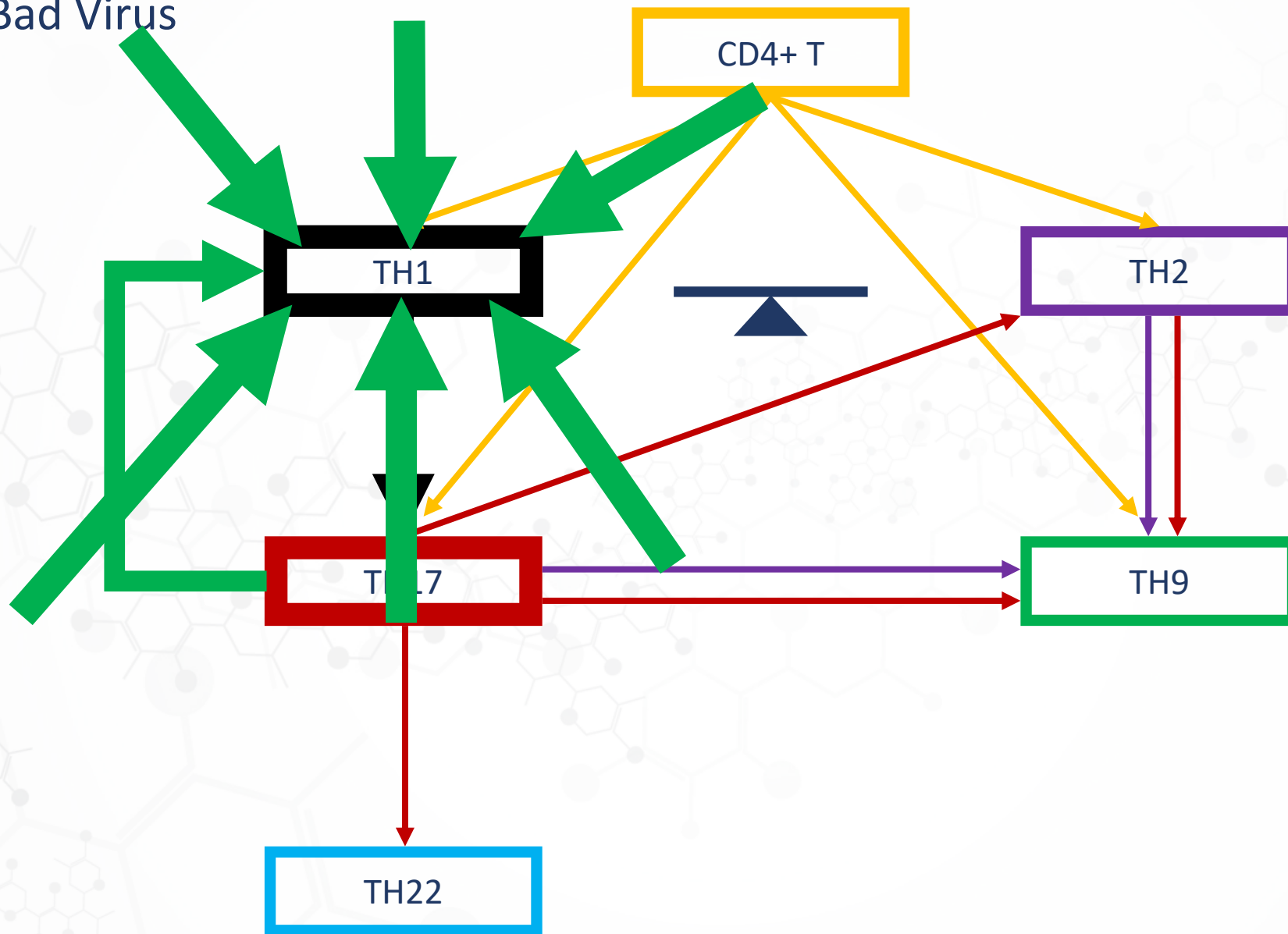
Vitamin C and Immune Function

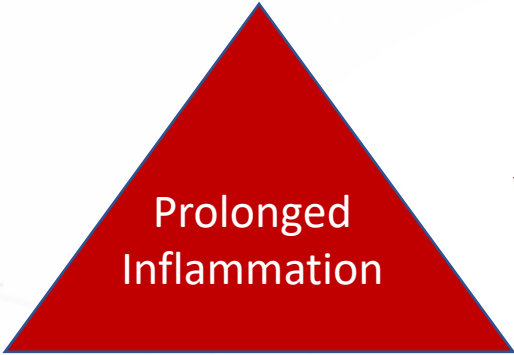
[Anitra C. Carr](#)^{1,*} and [Silvia Maggini](#)²

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BBV – Big Bad Virus





Lupus



diabetes



AI thyroid

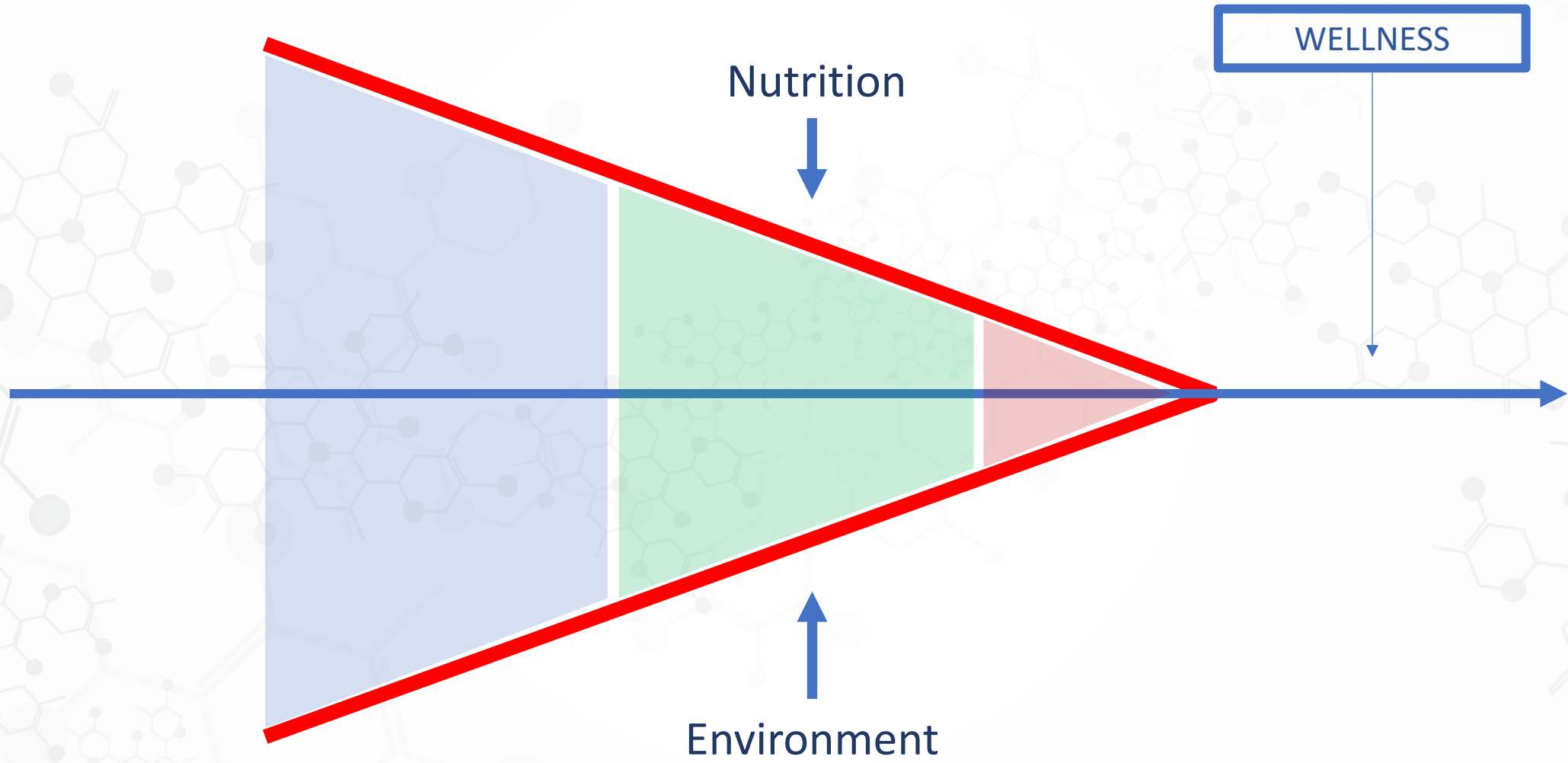


TH1

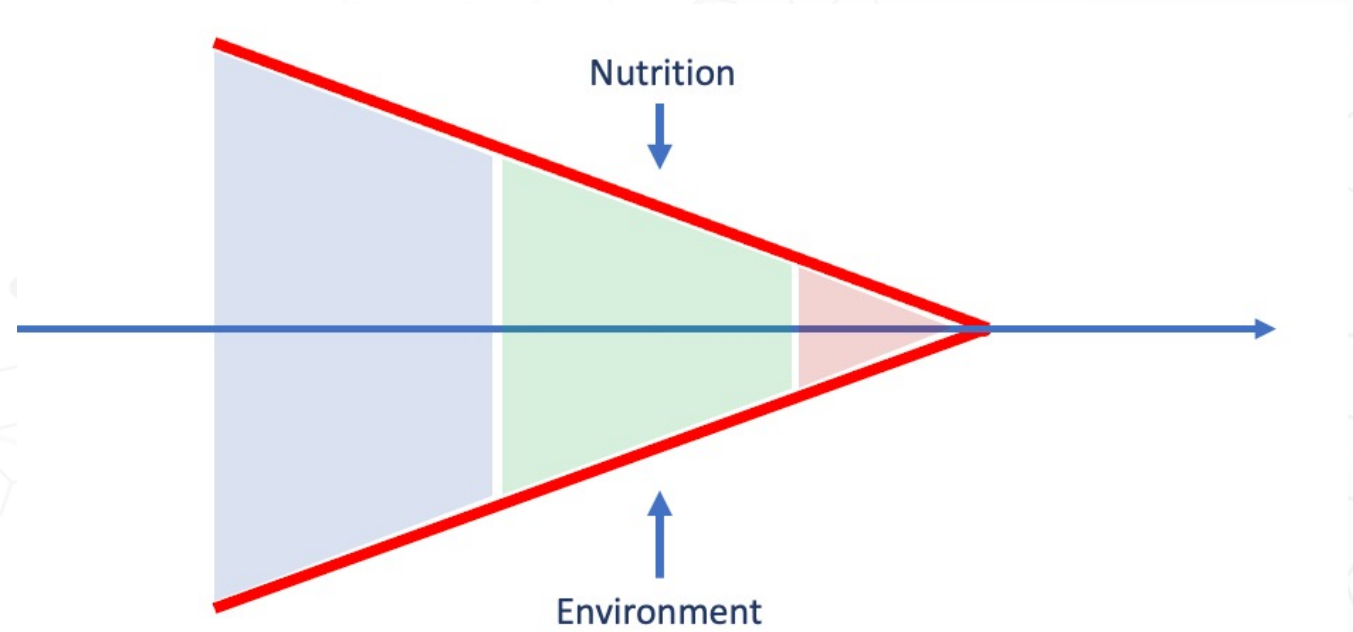
- Lifestyle:
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- mold
- LPS
- Blood Sugar Balance
- Alcohol
- Infections, etc.



Protocols



Immune Support



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