# **PureResponse®**

# Self-Tissue Response Brochure<sup>†</sup>



Featuring an Exclusive Protocol developed by Dr. Samuel Yanuck, DC<sup>+</sup>



# The Immune System & Self-Tissue Response

The immune system must distinguish between self and non-self to protect and maintain homeostasis in the body. The robustness of this process depends on a healthy balance of T helper cell types, as well as balanced cytokine expression.

While support for a healthy immune response is particularly important in patients with self-tissue response, it is essential in all patients. Along with the endocrine and nervous systems, the immune system is one of the three great regulating systems of the body, affecting all other systems and functions. The more we learn about immunology, the more we realize that practically all of the patterns seen commonly in a functional medicine practice have a fundamentally immunological basis.

In fact, the relevance of the immune system goes far beyond natural defenses. Immunology is at the root of many common clinical objectives, including:

- Tolerance of self-tissue
- Digestive health
- Cytokine balance
- Brain function, mood and cognition
- Joint function
- Glucose homeostasis
- Sinus and respiratory health
- Cardiovascular function

It is important to have a plan in place to address the immunological aspects of your patients' concerns and the right tools to implement the plan.



This PureResponse® brochure will introduce you to functional immunology thought leader Dr. Samuel Yanuck, DC and offer exclusive resources to help you modulate self-tissue response and address the immunological basis of the patterns seen commonly in your patients.

The following PureResponse® assets are included in this brochure:

- Dr. Yanuck's Self-Tissue Response Protocol a step-by-step guide targeting the underlying immunology of self-tissue response
- Key Mechanisms of Self-Tissue Response –
   a review of the underlying factors that includes the
   Self-Tissue Response Roadmap, a concise visual
   that helps put all the pieces together.
- Lab and Genomic Assessment Recommendations to personalize your plan of care
- On-Demand Educational Resources featuring complimentary access to Cogence Immunology, a comprehensive functional immunology course
- Product Descriptions and Ingredients for our exclusive line of evidence-based formulas designed to support a healthy immune response<sup>†</sup>



# PureResponse<sup>®</sup>

Developed with Functional Immunology Thought Leader

# Samuel Yanuck, DC

Dr. Yanuck has been in private practice since 1992 in Chapel Hill, N.C. He serves as CEO & Director of Education for Cogence®, LLC, an online functional immunology education company serving nearly 10,000 functional medicine clinicians on six continents.

Dr. Yanuck lectures internationally on topics in functional immunology, is an adjunct assistant professor in the Program on Integrative Medicine at the University of North Carolina School of Medicine and has published peer-reviewed papers on immunology and neuroimmunology in the medical literature.



"The more you learn about immunology, the more you realize how many of the patterns you see in your patients have a fundamental immunological basis. It's essential that you have a systematic plan to address the immunological basis for these patterns and the right tools to implement the plan." — DR. YANUCK

## PureResponse®

## **Self-Tissue Response Protocol**

#### DEVELOPED WITH IMMUNOLOGY THOUGHT LEADER SAMUEL YANUCK, DC+

This three-step protocol is intended for patients with an immune response directed at self-tissue. Each step supports a key aspect of the immune system and cumulatively helps promote a balanced immune response. Follow this protocol in a stepwise fashion. Once implemented, the formulas and dosages may be used indefinitely or modified as needed to maintain immune homeostasis.

Ongoing use of the formulas in this guide is recommended. Re-evaluate patient needs as necessary.

WEEK 1 2 6

**Promote T helper** Cell Balance<sup>‡</sup>

> At the start of Week 1, introduce the following two formulas to support a healthy balance of T helper cells:<sup>‡</sup>

#### Th1 Support

Order Code: TH11 Promotes a healthy Th1 immune response<sup>t</sup>

2 capsules, 1-2 times daily

#### Th2 Modulator

Order Code: TH2A1 Helps modulate the Th2 immune response and balance mast cell activity<sup>t</sup> 2 capsules, 1-2 times daily

## **Modulate Cytokine Activation**<sup>‡</sup>

At the start of Week 3, add the following three formulas to support cytokine balance, promote neuroimmune health, and modulate self-tissue response:

#### **Balanced Immune**

Order Code: BIM6 Modulates cytokine production<sup>1</sup>

1 capsule, 1-2 times daily

#### Brain Reset™

Order Code: BRT6 Promotes concentration, mental clarity, and memory associated with brain fog<sup>t</sup>

2 capsules daily

#### PureResponse® Multivitamin

Order Code: PRSM6 Supports immune balance and responsiveness<sup>‡</sup> 2 capsules daily

## Personalize your Plan of Care

Additional formulas auament the previous steps and address patient-specific concerns. At the start of Week 5, choose from the following formulas:

#### Coriolus extract

Order Code: CRS6 Promotes white blood cell number

1 capsule, 1-2 times daily

### **Epi-Integrity powder**

Order Code: EIP1 Supports G.I. barrier integrity and healthy modulation of mucosal immune response<sup>t</sup>

1 scoop, 1-2 times daily

#### Hist Reset

Order Code: HRT1 Modulates mast cell and immune mediator activation<sup>1</sup>

2 capsules daily

#### **Innate Immune Support**

Promotes healthy cellular immune response to support innate immunity<sup>t</sup>

1 capsule, 1-2 times daily

#### Perilla extract

Order Code: PRL9 Supports healthy modulation of Th2 cytokines and mucosal health<sup>t</sup> 1 capsule, 1-2 times daily

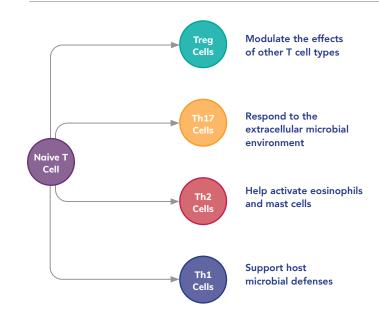
### Available for download at **PureEncapsulationsPro.com/PureResponse**

+Dr. Samuel F. Yanuck is a retained advisor for Pure Encapsulations

The information contained herein is for informational purposes only and does not establish a doctor-patient relationship

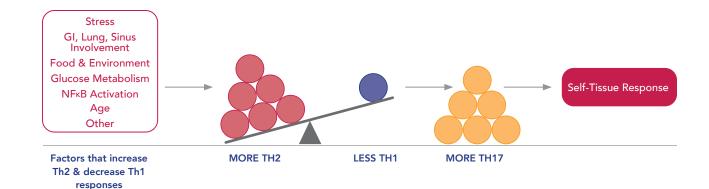
# **Key Mechanisms of Self-Tissue Response**

Promote T helper Cell Balance<sup>‡</sup>

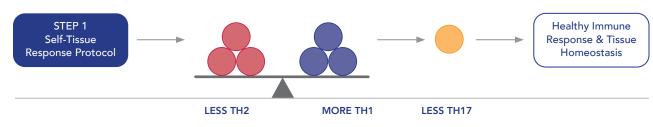


T helper cells are a class of lymphocyte that help the immune system respond appropriately to different types of threats faced by the body. They begin as naive T cells and become, when activated, unique T helper cell types. Which type they become depends on cytokines and other factors in their micro-environment at the time of their activation.

A balanced profile of T helper cells is crucial for immune defenses and tissue homeostasis. Unfortunately, many factors commonly seen in clinical practice can drive an imbalance in T helper cell types. Often, this occurs as an increase in the number and activity of Th2 cells (Th2 response) and a decrease in the number and activity of Th1 cells (Th1 response). In turn, this imbalance leads to the expansion of Th17 cells, which, through a cascade of effects, can make the patient more susceptible to developing an immune response directed at self-tissue.



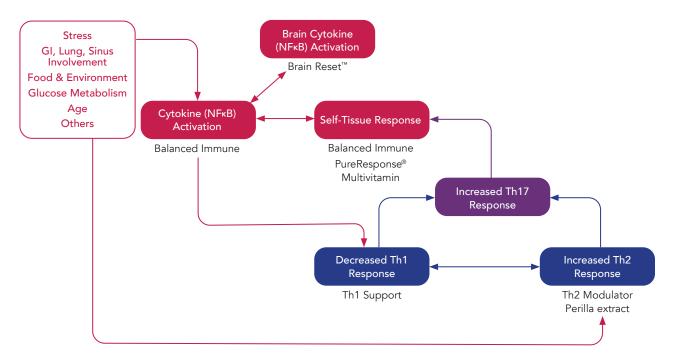
Step 1 of the Self-Tissue Response Guide is designed to support a balanced T cell repertoire, which promotes both cell-mediated immune defenses and tolerance towards self-tissue.



- 1. Zhu J, Paul WE. Blood. 2008 Sep 1;112(5):1557-69.
- 2. Miossec P, Korn T, Kuchroo VK. N Engl J Med. 2009 Aug 27;361(9):888-98. 3. Barnes PJ, Karin M. N Engl J Med. 1997 Apr 10;336(15):1066-71.
- O'Shea JJ, Plenge R. Immunity. 2012 Apr 20;36(4):542-50.
   Maddur MS, Miossec P, Kaveri SV, Bayry J. Am J Pathol. 2012 Jul;181(1):8-18.
- 6. Steinman L. Nat Med. 2007 Feb;13(2):139-45.
- 7. Akdis M, Burgler S, Crameri R, et al. J Allergy Clin Immunol. 2011 Mar;127(3):701-21.e1-70.

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## Modulate Cytokine Activation<sup>‡</sup>



Cytokines are messenger molecules that orchestrate immune system function. NF $_{\rm K}B$  is a protein complex that induces gene expression of a mixture of cytokines that initiate immune activation, which can increase self-tissue response. Persistent NF $_{\rm K}B$  increase can drive STAT3 expression, which increases Th17 response, which promotes self-tissue response.

#### Step 2 of the Self-Tissue Response Protocol

modulates the expression of NF $_{\kappa}$ B, which supports cytokine balance, a healthy T cell repertoire and tissue homeostasis. While supporting cytokine balance (Step 2) is an essential step, it is crucial to first support a balanced T helper cell profile (Step 1).

# 3

## Personalize your Plan of Care

The interconnectedness of elements in the immune system is often bi-directional. In some patients, progress depends upon addressing factors you would normally think of as downstream from the mechanisms discussed in steps 1 and 2. For instance, G.l., sinus, lung or bladder mucosal function, or mast cell activation can affect T cell polarization or cytokine activation. Therefore, modulating mast cell activation (with Hist Reset) or supporting GI mucosal health (with Epi-Integrity) can also contribute to a healthy T helper cell profile.

Personalize your plan of care by identifying the formulas in this category that match the circumstances of your patient's case.

#### Consider the following formulas:

<u>Innate Immune Support</u> promotes healthy cellular immune response to support innate immunity<sup>t</sup>

<u>Coriolus extract</u> promotes white blood cell number and function<sup>t</sup>

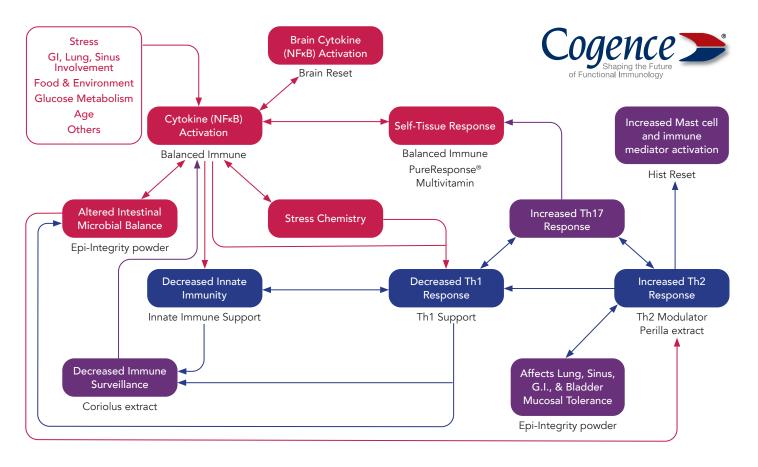
<u>Epi-Integrity powder</u> promotes healthy modulation of mucosal immune responses to support GI integrity in a great-tasting powder.<sup>1</sup>

<u>Perilla extract</u> supports healthy modulation of Th2 cytokines and mucosal health<sup>†</sup>

<u>Hist Reset</u> modulates mast cell and immune mediator activation<sup>t</sup>

## Self-Tissue Response Roadmap

This roadmap illustrates the interrelationships among key elements of the immune system and other biological processes. Key formulas are indicated on this roadmap where they are supportive of the underlying immune function. Visit **CogenceImmunology.com** to learn more about the underlying immunology of self-tissue response.



## PureResponse® Products

Th1 Support Order Code: TH11
Promotes a healthy Th1 immune response

Th2 Modulator Order Code: TH2A1
Helps modulate the Th2 immune response and balance

Helps modulate the Th2 immune response and balance mast cell activity<sup>t</sup>

Brain Reset Order Code: BRT6
Promotes concentration, mental clarity, and memory associated with brain fog<sup>†</sup>

Balanced Immune Order Code: BIM6
Modulates cytokine production

PureResponse® Multivitamin Order Code: PRSM6 Supports immune balance and responsiveness\*

Hist Reset Order Code: HRT1

Modulates mast cell and immune mediator activation

Coriolus extract Order Code: CRS6

Promotes white blood cell number and function

Innate Immune Support Order Code: IIS6

Promotes healthy cellular immune response to support innate immunity

Perilla extract Order Code: PRL9

Supports healthy modulation of Th2 cytokines and mucosal health

Epi-Integrity powder Order Code: EIP1

Supports G.I. barrier integrity and healthy modulation of mucosal immune response'

Available for download at <a href="PureEncapsulationsPro.com/PureResponse">PureResponse</a>

<sup>+</sup>Dr. Samuel Yanuck is a retained advisor for Pure Encapsulations. Cogence®, LLC. All rights reserved.

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## **Assessment Recommendations**

The functional immunology clinical assessment is chiefly based on the patient's history and current presentation. Areas of primary clinical focus are the extent of cytokine activation; the presence of self-tissue response; the need to support immune surveillance in the context of microbial balance; and the extent of support needed for mucosal integrity in the intestines, sinuses, lungs, vaginal tract or bladder. Assessments can be ordered through major lab testing companies (such as LabCorp® or Quest Diagnostics®), unless otherwise indicated. Not all assessments may be necessary, and additional testing may be warranted.

## Promote T helper Cell Balance<sup>†</sup>

- CBC with differential white count:
- Neutrophils above 68% may suggest Th17-mediated neutrophil increase.
- Lymphocytes above 40% suggests increased T and B cell activation.
- Monocytes above 11% suggests increased activity of macrophages.
- Eosinophils above 2% suggests Th2-mediated eosinophil increase.
- Basophils above 1% suggests Th2-mediated basophil increase.

- Viral and bacterial IgGs (and IgMs as needed):
- EBV
- CMV
- HSV 1 & 2
- HHV-6
- Parvovirus B19
- Coxsackie Virus
- ASO titer
- Anti-DNase B
- Mycoplasma

- TGF-β1
- Glutathione
- Total Quantitative IqE
- 24-hour salivary cortisol
- IgG subclasses
- Cogence® Brief **Immunological** Assessment\*

## Modulate Cytokine Activation<sup>†</sup>

Vitamin D

• Zinc

- Genetic Markers (PureGenomics®)
- Self-tissue antibodies Vitamin A
- TGF-β1
- GlycA
- hsCRP

The following markers will only move out of range in more vigorous cases:

- Acute phase reactants (such as hsCRP and ferritin)
- Liver function tests
- Interleukin-6 (rarely high, meaningful when found)
- SED rate
- Zinc
- oxLDL

## Personalize your Plan of Care

- G.I. assessments:
- History related to bloating and other factors
- Stool analysis (including zonulin)
- ASCA/ANCA antibodies
- Food IqG/IqA tests
- Mycotoxin tests
- Innate immune assessments:
- NK cell levels
- Viral and bacterial IgGs (and IgMs as needed): See step 1

- WBC numbers and function
- Mast Cell Activation:
- DAO
- Histamine, plasma
- Cogence® Brief Immunological Assessment

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- Potassium (should be greater than 4 mEq/L)

- WBC count on CBC should be ≥ 4

- Self-reported mast cell related symptoms
- Genetic Marker (PureGenomics): AOC1 (DAO)



Modulating your patients' self-tissue response can often feel overwhelming, but Dr. Yanuck's Self-Tissue Response Protocol offers a reliable and effective strategy that targets the underlying immunology of self-tissue response and provides you with the tools to support a healthy, balanced immune response in all your patients.

## Protocols, On-Demand Learning and More!

**Summary** 

Find additional brochures, protocols, product information, on-demand lectures and more at:

PureEncapsulationsPro.com/ <u>PureResponse</u>

## Complimentary Access to Cogence® Immunology

Cogence® is an online course — built by Dr. Samuel Yanuck, DC that offers an in-depth functional immunology learning experience. Designed to connect underlying immunology with clinical applications, Cogence® creates a rigorous yet intuitive program that will allow you to navigate each patient's unique clinical pattern.

At Pure Encapsulations<sup>®</sup>, we have made a unique commitment to provide functional medicine practitioners with full access to this course at no additional cost, assuming the full cost of membership.

Your complimentary Cogence® membership will give you access to over 200 instructional videos, each 20 to 90 minutes long and grouped into 22 modules, covering a wide range of topics.

To get started, visit **PureEncapsulationsPro.com/Cogence** 

<sup>\*</sup>Available in the tools section at Cogencelmmunology.com

PureGenomics® nutritional information is not intended for use in the diagnosis, cure, mitigation, treatment or prevention of disease.

## 10 Exclusive Formulas

Developed in collaboration with Dr. Samuel Yanuck, DC to support various functions within the immune system. These formulas can be used individually to address specific clinical objectives or in concert as part of the PureResponse® Self-Tissue Response Protocol.‡

Formula Order Code	Innate and Adaptive Immune Response	GI-Sinus-Lung Support	Mast Cell Modulation	Cytokine Activation	Self-Tissue Response	WBC Support	Brain Support
<b>Hist Reset</b> Order Code: HRT1		**	***				**
Brain Reset Order Code: BRT6				**			***
<b>Th1 Support</b> Order Code: TH11	***	**			***	***	
<b>Th2 Modulator</b> Order Code: TH2A1		***	***				
Innate Immune Support Order Code: IIS6	***					**	
Balanced Immune Order Code: BIM6				***	***		**
<b>Epi-Integrity powder</b> Order Code: EIP1		***	**	**			
Perilla extract Order Code: PRL9		***	***		***		
Coriolus extract Order Code: CRS6	**					***	
PureResponse® Multivitamin Order Code: PRSM6					***		

## PureResponse® Products

## **Nutritional Supplements** You Can Trust

At Pure Encapsulations, we've spent the last 30 years researching, innovating, and developing our comprehensive line of premium supplements to bring you uniquely formulated products made with high-quality and pure ingredients, backed by verifiable science. And what we leave out of our products is just as important as what we put in. That's why Pure Encapsulations offers a comprehensive line of supplements FREE FROM unnecessary additives and many common allergens, providing your patients with everything they need, and nothing they don't—that's goodness encapsulated.

## **Balanced Immune**

Formulated with Samuel F. Yanuck, D.C.<sup>+</sup>

#### SUPPORTS HEALTHY CELLULAR IMMUNE RESPONSE AND CYTOKINE PRODUCTION<sup>‡</sup>

- Supports immune balance and tissue integrity, in part, by targeting the NLRPs (NOD-like receptor proteins) and NF-kB pathways to modulate cytokine production; NLRPs act as intracellular sensors to oxidative and environmental stressors<sup>t</sup>
- Promotes numerous enzyme and gene transcription pathways including SIRT1 and Nrf2<sup>t</sup>
- Promotes the health of joint, G.I. and thyroid tissue that is influenced by immunological factors<sup>t</sup>

Balanced Immune is a comprehensive formula focused on promoting immune health. Research suggests curcumin and vitamin D support healthy cellular responses by modulating pathways to cytokine production. The formula also promotes multiple enzyme and gene transcription pathways implicated in nutrient metabolism in the liver, detoxification and cellular protection against oxidative stress. Black ginger and resveratrol promote healthy SIRT1 protein levels. SIRT1 supports cellular homeostasis, plays an important role in insulin secretion and glucose homeostasis, and affects glucose and lipid metabolism in the liver. In a double-blind, placebo-controlled, crossover study, 100 mg of Sirtmax® black ginger extract for seven weeks supported healthy

glucose metabolism and weight management, while in vitro studies on its active constituents suggest a five-fold increase in SIRT1 activity compared to resveratrol. Sulforaphane and resveratrol support the activity of Nrf2, a transcription factor that supports cellular function by promoting cellular detoxification and protection against oxidative stress.\*

#### 1 capsule, 1-2 times daily, with or between meals.

#### Each (size 00) vegetarian capsule contains:

Vitamin D (as cholecalciterol) (D <sub>3</sub> )	25 mcg (1,000 IU)
Meriva® turmeric phytosome	200 mg
(Curcuma longa extract (root) and sunflower phosp	pholipid
complex) (standardized to contain 18% curcuminoi	ds)
Broccoli (Brassica oleracea italica) sprout concentrate	150 mg
(whole plant) (standardized to contain 600 mcg su	lforaphane)
Trans-resveratrol (from Japanese knotweed	100 mg
(Polygonum cuspidatum) extract (root))	
Sirtmax® black ginger (Kaempferia parviflora) extract	(root) 50 mg
Quercetin	60 mg
Other ingredients: vegetarian capsule (cellulose, water	er), hypoallergenic
plant fiber (cellulose)	

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Meriva® is a trademark of Indena S.p.A.

Phytosome More Bioavailable is a trademark of Indena S.p.A.

Sirtmax® is a registered trademark of Tokiwa Phytochemical Co., Ltd.

<sup>+</sup>Dr. Yanuck is a retained advisor for Pure Encapsulations.

†Provides weight management support as part of a healthy lifestyle with a reduced-calorie diet and regular exercise.







Balanced Immune	Quantity	Order Code
	60	BIM6



## **Brain Reset**<sup>™</sup>

Formulated with Samuel F. Yanuck, D.C.

#### PROMOTES CONCENTRATION, MENTAL CLARITY AND MEMORY ASSOCIATED WITH BRAIN FOG<sup>‡</sup>

Brain Reset<sup>™</sup> is designed to promote concentration and memory with multi-faceted support for healthy blood flow, immune mediator production, neuroprotection and cognitive function. Ginkgo biloba and butcher's broom help sustain the strength and elasticity of blood vessels and capillaries, and may also promote the flow of oxygen and blood to the brain. Ginkgo biloba is included in this formula as Virtiva® ginkgo-phosphatidylserine phytosome complex.<sup>‡</sup>

Phytosomes boost resistance to degradation in the digestive tract and promote efficient absorption across membranes for enhanced bioavailability. In a randomized, double-blind, placebo-controlled crossover study, phosphatidylserine-bound ginkgo extract enhanced secondary memory performance and significantly increased speed of memory task performance at 1, 2.5, 4 and 6 hours, compared to standard ginkgo extract or phosphatidylcholine-bound ginkgo extract. In another study, ginkgo extract promoted executive function in women. Preliminary research suggests that ginkgo may also support dopamine levels in the prefrontal cortex of the brain.

Bacopa extract has over 35 years of clinical research focusing on support for memory and peak cognitive performance. In a randomized, controlled trial involving healthy adults, 320 mg of bacopa extract promoted performance on cognitively demanding tests. In another study, it promoted multi-tasking performance at 1 and 2 hours after administration, and supported positive mood. In a third trial, 90 days of supplementation with bacopa promoted working memory performance, including spatial working memory accuracy and visual information processing accuracy.\*

Riboflavin and feverfew have been studied for their ability to promote cranial comfort, with numerous randomized, double-blind, placebocontrolled trials exploring their supportive effects. Feverfew is thought to act in part by maintaining healthy cytokine, leukotriene and prostaglandin metabolism, as well as promoting healthy cranial vascular muscle function. Luteolin promotes neuronal health through antioxidant, immunomodulating and mast cell stabilizing actions, helping to moderate the release of immune mediators. In a randomized, double-blind trial involving older men and women, daily supplementation with 3.2 grams of lion's mane powder (equivalent to 800 mg of lion's mane 30% polysaccharides extract) daily for 12 weeks promoted cognitive function, as assessed by the Mini-Mental State Examination questionnaire (MMSE). It may also offer support for relaxation and mood. In vitro and animal research suggest that lion's mane promotes neuronal health by supporting nerve growth factor (NGF) synthesis.<sup>‡</sup>

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#### 2 capsules daily, between meals.

#### Two (size 00) vegetarian capsules contain:

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Riboflavin	20 mg
Lion's Mane mushroom	400 mg
(Hericium erinaceus) extract (fruiting body)	
Bacopa (Bacopa monnieri) extract (aerial parts)	320 mg
(standardized to contain 20% bacosides)	
Virtiva® ginkgo-phosphatidylserine phytosome	120 mg
(Ginkgo biloba extract (leaf) and sunflower phospholipid comple	ex)
(standardized to contain 5% ginkgoflavonglucosides	
and 12% phosphatidylserine)	
Butcher's broom (Ruscus aculeatus) extract (root)	150 mg
Feverfew (Tanacetum parthenium) extract (leaf)	150 mg
Luteolin	100 mg
Other ingredients: vegetarian capsule (cellulose, water)	

Virtiva® is a registered trademark of Indena S.p.A., Italy.

<sup>+</sup>Dr. Yanuck is a retained advisor for Pure Encapsulations.

#### Not to be taken by pregnant or lactating women.









Brain Reset	Quantity	Order Code
	60	BRT6

## Coriolus extract

Formulated with Samuel F. Yanuck, D.C.<sup>+</sup>

#### HOT-WATER MUSHROOM EXTRACT TO PROMOTE WHITE BLOOD CELL NUMBER AND FUNCTION<sup>‡</sup>

Coriolus versicolor, also known as turkey tail mushroom, is used in traditional Chinese medicine, primarily to enhance immune function and energy. Research indicates an immunomodulatory effect and promotion of white blood cell number and function, including lymphocyte, macrophage and NK cells. It has also been shown to support antibody production, cytokine balance and a healthy gut microflora. The main bioactive compounds in this mushroom are polysaccharides, namely beta-glucan. Ours' Coriolus extract is wild-crafted and organic, produced using only carefully controlled hot water to break apart the cell walls for concentration of the soluble beta-glucans.\*

#### 1 capsule, 1-2 times daily, between meals.

#### Each (size 00) vegetarian capsule contains:

Turkey tail mushroom (Coriolus versicolor) extract (fruiting body) 500 mg (certified organic) (standardized to contain 30% beta glucan)

Other ingredients: vegetarian capsule (cellulose, water)

<sup>+</sup>Dr. Yanuck is a retained advisor for Pure Encapsulations.







Coriolus extract	Quantity	Order Code
	60	CRS6

## **Epi-Integrity powder**

Formulated with Samuel F. Yanuck, D.C.

#### PROMOTES HEALTHY MODULATION OF MUCOSAL IMMUNE RESPONSES TO SUPPORT GI INTEGRITY IN A GREAT-TASTING POWDER<sup>‡</sup>

Epi-Integrity powder combines glutamine, prebiotic fiber and herbal extracts to promote healthy modulation of mucosal immune response to support gastrointestinal (G.I.) integrity and function. Th2 modulation may be indicated when addressing immune balance in the G.I. tract. L-glutamine is an essential fuel for enterocytes (the cells that line the small intestine and colon), supporting cellular renewal, glutathione production and healthy, everyday tissue repair, while promoting healthy villous function. Arabinogalactan is a prebiotic fiber found in high concentrations in North American larch trees. It has been shown to increase the concentration of beneficial bacteria, such as Bacteroidetes and Faecalibacterium prausnitzii.

Beneficial microflora are crucial for proper gut-associated lymphoid tissue (GALT) function and development. Research suggests higher levels of F. prausnitzii are associated with healthy cytokine balance and G.I. function. In clinical trials, arabinogalactan has been shown to promote immune cell function. In a randomized three-week trial involving healthy adults, arabinogalactan potentiated the innate immune system, supporting key first-line defenses. Perilla supports cytokine homeostasis of the G.I. mucosal tissue. In a randomized, controlled trial involving 50 individuals, 150 mg of Benegut® Perilla frutescens extract twice daily offered statistically significant support for G.I. comfort. Research suggests that perilla also helps maintain cytokine balance and stabilize mast cells. Astragalus promotes cytokine balance and supports macrophage, natural killer (NK) cell and T cell activity. Adaptogens like astragalus support physiological and cellular homeostasis and have positive effects on immune function and antioxidant defenses. Deglycyrrhizinated licorice (DGL) maintains intestinal comfort by supporting the protective mucosal linina.‡

1 scoop, 1-2 times daily. Add 1 serving to 8 oz of water or juice. Shake or stir until dissolved.

Serving size: 1 scoop (approximately 5.7 g) Servings per container: approximately 30

#### One scoop (approximately 5.7 g) contains:

Calories	15
Total Carbohydrate	2.5 g
Sodium (naturally occurring)	25 mg
Arabinogalactan	2.4 g
I-Glutamine (free form)	2.4 g
Benegut® Perilla (Perilla frutescens) extract (leaf)	150 mg
Astragalus (Astragalus membranaceus) extract (root)	200 mg
Deglycyrrhizinated licorice (Glycyrrhiza glabra) extract (root)	50 mg
Other ingredients: citric acid, natural strawberry and lemonade	flavors,
malic acid, purified stevia leaf extract	

Benegut® is a trademark of Vital Solutions GmbH, Germany.

<sup>+</sup>Dr. Yanuck is a retained advisor for Pure Encapsulations.

Gastrointestinal Health









Epi-Integrity powder	Quantity	Order Code
	6 oz (171 g)	EIP1

#### **Hist Reset**

Co-Formulated by Dr. Samuel Yanuck D.C.<sup>+</sup> and Dr. Nathan Morris M.D.<sup>+</sup>

#### MODERATES MAST CELL AND IMMUNE MEDIATOR ACTIVATION<sup>‡</sup>

Histamine is a substance found in many foods such as meat, spinach, avocados, nuts, tomatoes and chocolate, or released as part of the local immune response by immune cells, primarily mast cells, upon exposure to an immune trigger. Some individuals have difficulty breaking down histamine. This formula is designed to modulate mast cell and immune-mediator activation, support healthy histamine metabolism and promote respiratory and tissue health. Quercetin, luteolin and rutin are flavonoids known to exhibit antioxidant and immune-modulating activity. In vitro studies involving mast cells suggest that these compounds help to stabilize mast cells and modulate the release of immune mediators, including histamine, leukotrienes and prostaglandins. The mechanism of action is believed to be in part due to modulating extracellular signal-regulated kinases, including PKC. Animal studies suggest that these flavonoids can moderate IgE antibody-mediated response in skin. Bromelain (from pineapple) acts as a protease, promoting healthy levels of kinins to support tissue comfort. Research suggests that bromelain also supports healthy T cell function and cytokine production. Riboflavin, niacinamide and molybdenum are included as cofactors for aldehyde dehydrogenase, a key enzyme in the breakdown of histamine. Preliminary research suggests that supplementation with vitamin C modulates bronchial responsiveness to histamine in sensitive subjects. Optimal vitamin C serum levels have been associated with lower blood histamine levels. NAC promotes immune and lung defense through mucolytic and antioxidant actions. It acts as a free radial scavenger by supporting glutathione production. Due to its sulfur content, NAC is able to disrupt disulfide bonds within mucus, thinning and easing its expulsion, along with the trapped particles, from the lungs<sup>‡</sup>

#### 2 capsules daily, between meals.

#### Two (size 0) vegetarian capsules contain:

Vitamin C (as ascorbic acid)	250 mg
Riboflavin	5 mg
Niacin (as niacinamide)	20 mg
Molybdenum (as molybdenum glycinate TRAACS™)	100 mcg
N-Acetyl-I-cysteine	100 mg
Quercetin	300 mg
Bromelain (from pineapple stem)	200 mg
(2,400 GDU/gram)	
Luteolin	100 mg
Rutin	100 mg
Other ingredients: vegetarian capsule (cellulose, water)	

TRAACS™ is a trademark of Albion Laboratories, Inc.

\*Dr. Yanuck & Dr. Morris are retained advisors for Pure Encapsulations.

#### Not to be taken by pregnant or lactating women.







Hist Reset	Quantity	Order Code
	120	HRT1

## **Innate Immune Support**

Formulated with Samuel F. Yanuck, D.C.

#### PROMOTES HEALTHY CELLULAR IMMUNE RESPONSE TO SUPPORT INNATE IMMUNITY<sup>‡</sup>

- Promotes NK cell and macrophage activity<sup>t</sup>
- Supports natural defenses<sup>‡</sup>

14

 Contains clinically researched, biologically standardized AP-Bio™ andrographis, along with astragalus and reishi mushroom beta glucans, to promote immune function<sup>1</sup>

Innate Immune Support is designed to promote cell-mediated immune response, including NK cell and macrophage activity, and may be indicated for enhancement of natural defenses and mucosal health. In vitro and animal studies suggest that astragalus supports NK cell activity, as well as IgA and IgG levels in serum, key antibodies that play a critical role in mucosal immune defense. The formula also includes clinically researched andrographis extract standardized for andrographolide and other bioactive diterpene lactones. In a randomized, double-blind, placebo-controlled study, supplementation with 200 mg of AP-Bio<sup>™</sup> andrographis for five days promoted immune function and supported respiratory comfort. Reishi mushroom offers a rich source of polysaccharides to promote cell-mediated immunity from both reishi mushroom extract and a unique, highly purified, reishi mushroom-derived beta 1,3/1,6-D glucan extract.

#### 1 capsule, 1-2 times daily, between meals.

#### Each (size 00) vegetarian capsule contains:

Astragalus (Astragalus membranaceus) extract (root)	240 mg
AP-Bio™ andrographis (Andrographis paniculata) extract (leaf)	200 mg
(standardized to contain 31.5% andrographolide)	
Mushroom beta glucan (from reishi (Ganoderma lucidum)	100 mg
extract (mycelia))(standardized to contain 70% beta 1,3/1,6 g	glucan)
Reishi (Ganoderma lucidum) extract (fruiting body)	100 mg
Other ingredients: vegetarian capsule (cellulose, water), hypoall	ergenic
plant fiber (cellulose)	

AP-Bio™ is a registered trademark of Natural Remedies PVT. LTD.

<sup>+</sup>Dr. Yanuck is a retained advisor for Pure Encapsulations.









Innate Immune Suppo	rt	Quantity	Orde Code

60

IIS6

### Perilla extract

Formulated with Samuel F. Yanuck, D.C.<sup>+</sup>

#### SUPPORTS HEALTHY MODULATION OF TH2 CYTOKINES AND MUCOSAL HEALTH‡

Perilla seed offers a concentrated source of polyphenols (including rosmarinic acid and luteolin), along with other beneficial compounds. This herb has traditionally been used to promote healthy respiratory and immune function. In animal models of Th2 dominance, perilla helped maintain healthy upper respiratory cytokine levels. Perilla extract helps support healthy modulation of Th2 cytokines, and eosinophil and mast cell activity. It also helps maintain healthy modulation of mucosal immune responses to environmental factors and cytokine homeostasis of GI mucosal tissue.

#### 1 capsule, 1-2 times daily, between meals.

#### One (size 2) capsule contains:

` ' '	
Perilla (Perilla frutescens L.) extract (seed)	150 mg
(standardized to contain 3% polyphenols)	
Other ingredients: vegetarian capsule (cellulose, water)	

<sup>+</sup>Dr. Yanuck is a retained advisor for Pure Encapsulations.







Perilla extract	Quantity	Order Code	
	90	PRL9	

## PureResponse® Multivitamin

Formulated with Samuel F. Yanuck, D.C.<sup>+</sup>

#### MULTIVITAMIN/MINERAL COMPLEX DESIGNED TO SUPPORT IMMUNE BALANCE AND RESPONSIVENESS‡

PureResponse® Multivitamin was designed to support key pivot points in immune function, including neutrophil and natural killer (NK) cell response, and cytokine production. This first-of-its-kind, unique formulation supports healthy cell-mediated immunity with a comprehensive blend of nutrients and reishi mushroom extract. It also includes the adaptogen eleuthero to promote physiological balance and moderate occasional stress, including corticosterone activity, cytokine balance and nutrient metabolism. PureResponse® Multivitamin features enhanced levels of fat-soluble vitamins, including pre-formed vitamin A, vitamin D<sub>3</sub>, vitamin E with mixed tocopherols and both vitamin  $K_1$  and  $K_2$ . To accommodate the needs of patients with self-tissue response, PureResponse® Multivitamin is free from iron, copper, iodine and manganese.<sup>‡</sup>

#### 2 capsules daily, with a meal.

#### Two (size 00) capsules contain:

Vitamin A (as vitamin A acetate)	1,500 mcg
Vitamin C (as ascorbic acid)	100 mg
Vitamin D (as cholecalciferol) (D <sub>3</sub> )	125 mcg (5,000 IU)
Vitamin E (as d-alpha tocopherol succinate)	15 mg
Vitamin K (as vitamin K <sub>1</sub> )	135 mcg
Thiamin (as thiamin HCI) (B <sub>1</sub> )	5 mg
Riboflavin (as riboflavin and 60% riboflavin-5-phos	sphate 5 mg
(activated B <sub>2</sub> ))	
Niacin (as niacinamide)	20 mg
Vitamin B <sub>6</sub>	10.4 mg
(as pyridoxine HCl and 76% pyridoxal-5-phosph	ate (activated B <sub>6</sub> ))
Folate (as Metafolin*, L-5-MTHF) 667 mcg DFE	(400 mcg L-5-MTHF)
Vitamin B <sub>12</sub> (as adenosylcobalamin	1,000 mcg
and 50% hydroxycobalamin)	
Biotin	300 mcg
Pantothenic acid (as calcium pantothenate) (B <sub>5</sub> )	50 mg

Choline (as choline bitartrate)	20 mg
Magnesium (as di-magnesium malate) (Albion™)	100 mg
Zinc (as zinc citrate)	25 mg
Selenium (as selenomethionine)	150 mcg
Chromium (as chromium polynicotinate)	200 mcg
Molybdenum (as molybdenum glycinate chelate) (TRAACS™)	150 mcg
Potassium (as potassium citrate)	15 mg
Vitamin K <sub>2</sub> (menaquinone-7)	45 mcg
Mixed tocopherols	20 mg
FloraGLO° lutein	3 mg
Zeaxanthin	500 mcg
Eleuthero (Eleutherococcus senticosus) extract (root)	125 mg
(standardized to contain 0.8% eleutherosides)	
Reishi (Ganoderma lucidum) extract (fruiting body)	75 mg
Other ingredients: vegetarian capsule (cellulose, water), ascorby	l palmitate

ChromeMate® brand niacin-bound chromium. ChromeMate® & logo are trademarks of Lonza or its affiliates.

Metafolin® is a registered trademark of Merck KGaA, Darmstadt, Germany.

®FloraGLO is a registered trademark of Kemin Industries, Inc.

Albion<sup>™</sup> and TRAACS<sup>™</sup> are trademarks of Albion Laboratories, Inc.

Zeaxanthin is sourced from OPTISHARP® brand. OPTISHARP® is a trademark of DSM.

<sup>+</sup>Dr. Yanuck is a retained advisor for Pure Encapsulations.

Vitamin K may be contraindicated with Coumadin (Warfarin). If you are pregnant or lactating, have any health condition or are taking any medication, particularly blood-thinning medication, consult your health professional





PureResponse® Multivitamin	Quantity	Order Code
	60	PRSM6



## Th1 Support

Formulated with Samuel F. Yanuck, D.C.<sup>+</sup>

#### PROMOTES HEALTHY TH1-PREDOMINANT CELLULAR IMMUNE RESPONSE<sup>‡</sup>

- Supports healthy activation of Th1 cells to promote innate immunity and cell-mediated immune defenses<sup>t</sup>
- Th1 response is affected by stress, aging and cytokine changes resulting from metabolic, hormonal, physiological and environmental factors
- Helps maintain healthy immune biomarkers related to cell tissue health and comfort
- Helps balance cytokine production in order to promote Th1 differentiation<sup>1</sup>

Th1 Support is designed to support healthy activation of Th1 cells to promote innate immunity and cell-mediated immune defenses. Support for Th1 may be indicated for enhancement of natural defenses. According to preclinical data, the formula ingredients support maturation of T cells into Th1 cells and production of IL-12 and IFN-y, important Th1-promoting cytokines. Studies suggest that berberine positively influences immune biomarkers related to cell and tissue health. Sulforaphane from broccoli promotes various aspects of immunological homeostasis that maintain the health of mucosal cells.\*

#### 2 capsules, 1-2 times daily, with or between meals.

#### Two (size 00) vegetarian capsules contain:

Zinc (as zinc picolinate)	10 mg
Berberine HCI	500 mg
Chinese skullcap (Scutellaria baicalensis) extract (root)	300 mg
(standardized to contain 30% baicalins)	
Broccoli (Brassica oleracea italica) sprout concentrate	100 mg
(whole plant) (standardized to contain 400 mcg sulforaphane)	
Ginger (Zingiber officinale) extract (root)	120 mg
(standardized to contain 5% gingerols)	
Other ingredients: vegetarian capsule (cellulose, water)	

<sup>+</sup>Dr. Yanuck is a retained advisor for Pure Encapsulations.

Not to be taken by pregnant or lactating women. If you have any health condition or are taking any medication, consult your health professional











### Th2 Modulator

Formulated with Samuel F. Yanuck, D.C.<sup>+</sup>

HELPS MODULATE THE TH2 IMMUNE RESPONSE AND MAINTAINS TH1/TH2 BALANCE AT THE CELLULAR LEVEL‡

- Helps modulate Th2 cytokines, and eosinophil and mast
- Th2 response is affected by stress, aging and cytokine changes resulting from metabolic, hormonal, physiological and environmental factors
- Offers support for healthy self-tissue response
- Helps maintain healthy modulation of mucosal immune responses to environmental factors<sup>t</sup>

Th2 Modulator is designed to modulate the Th2 immune response, to support healthy Th1/Th2 balance, self-tissue response and mucosal health. This product helps support healthy modulation of Th2 cytokines, and eosinophil and mast cell activity. It also helps maintain healthy modulation of mucosal immune responses to environmental factors. Th2 modulation may be indicated when addressing immune balance in the sinus, respiratory, urinary and intestinal tracts. Perilla maintains healthy upper respiratory cytokine levels in animal models of Th2 dominance. It also supports cytokine homeostasis of GI mucosal tissue. Perilla seed offers a more concentrated source of polyphenols, rosmarinic acid, luteolin and other beneficial compounds compared to leaf. N-acetyl-L-cysteine (NAC) offers mucolytic properties and promotes tissue levels of glutathione.

#### 2 capsules, 1-2 times daily, between meals.

#### Two (size 00) vegetarian capsules contain:

N-Acetyl-I-cysteine	300 mg
Quercetin	250 mg
Perilla (Perilla frutescens) extract (seed)	150 mg
(standardized to contain 3% polyphenols)	
Astragalus (Astragalus membranaceus) extract (root)	160 mg
Other ingredients: vegetarian capsule (cellulose, water), hypoallergenic	
plant fiber (cellulose)	

<sup>+</sup>Dr. Yanuck is a retained advisor for Pure Encapsulations.









	Quantit

Order

Th2 Modulator Code 120 TH2A1

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1 Among U.S. healthcare professionals surveyed who recommend specific professional supplement brands Nutrition Business Journal® Practitioner Survey 2016, 2020, 2023





TH11

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