



Immudyne
Nutritional NQ™

ImmuDyne Nutritional

NEW DATA
The UNIQUE
immune ingredient

March 1, 2020

Sven Rohmann
MD, PhD, MBA

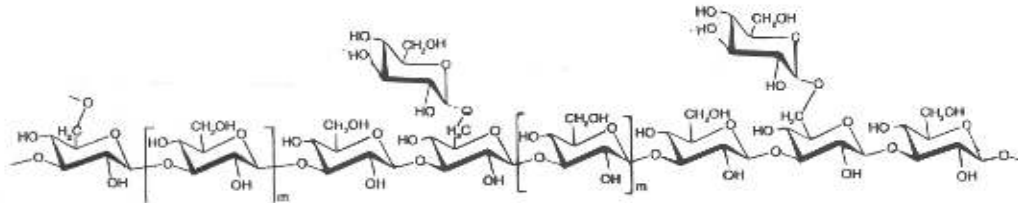
Immudyne Nutritional NQ

The UNIQUE immune support ingredient

Produces UNIQUE results

STRUCTURE OF IMMUDYNE NQ YEAST β -1,3 1,6-GLUCAN

DEGREE OF BRANCHING shown with $m = 15$ as
average number of β -1,3 1,6-glucan units
separating each β -1,6-glucose unit

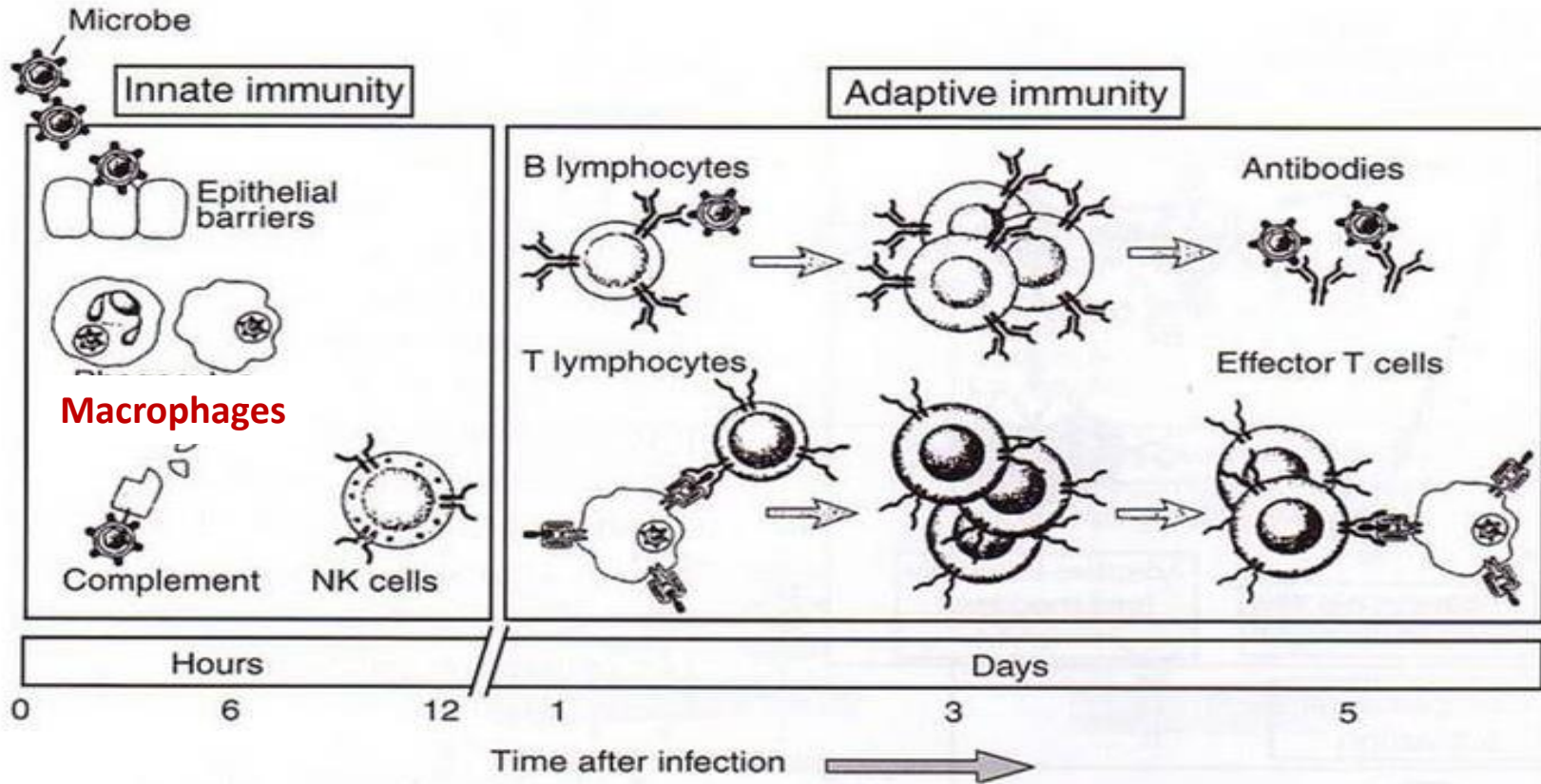


Immudyne
Nutritional NQTM

Immudyne Nutritional NQ

The UNIQUE immune support ingredient

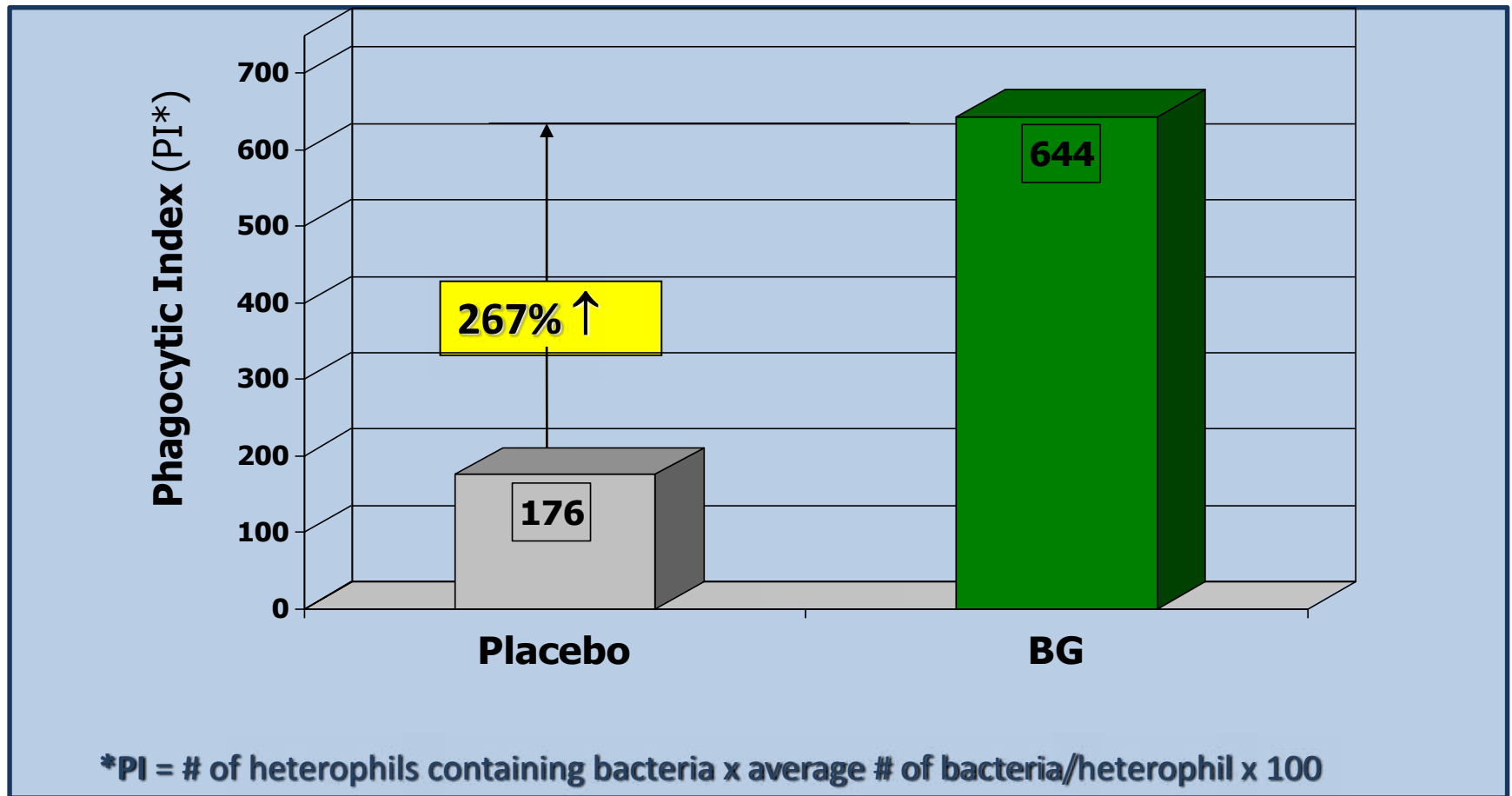
Connects with innate immunity multiple ways: 1) macrophage cells



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The **UNIQUE** immune support ingredient: increases phagocytosis

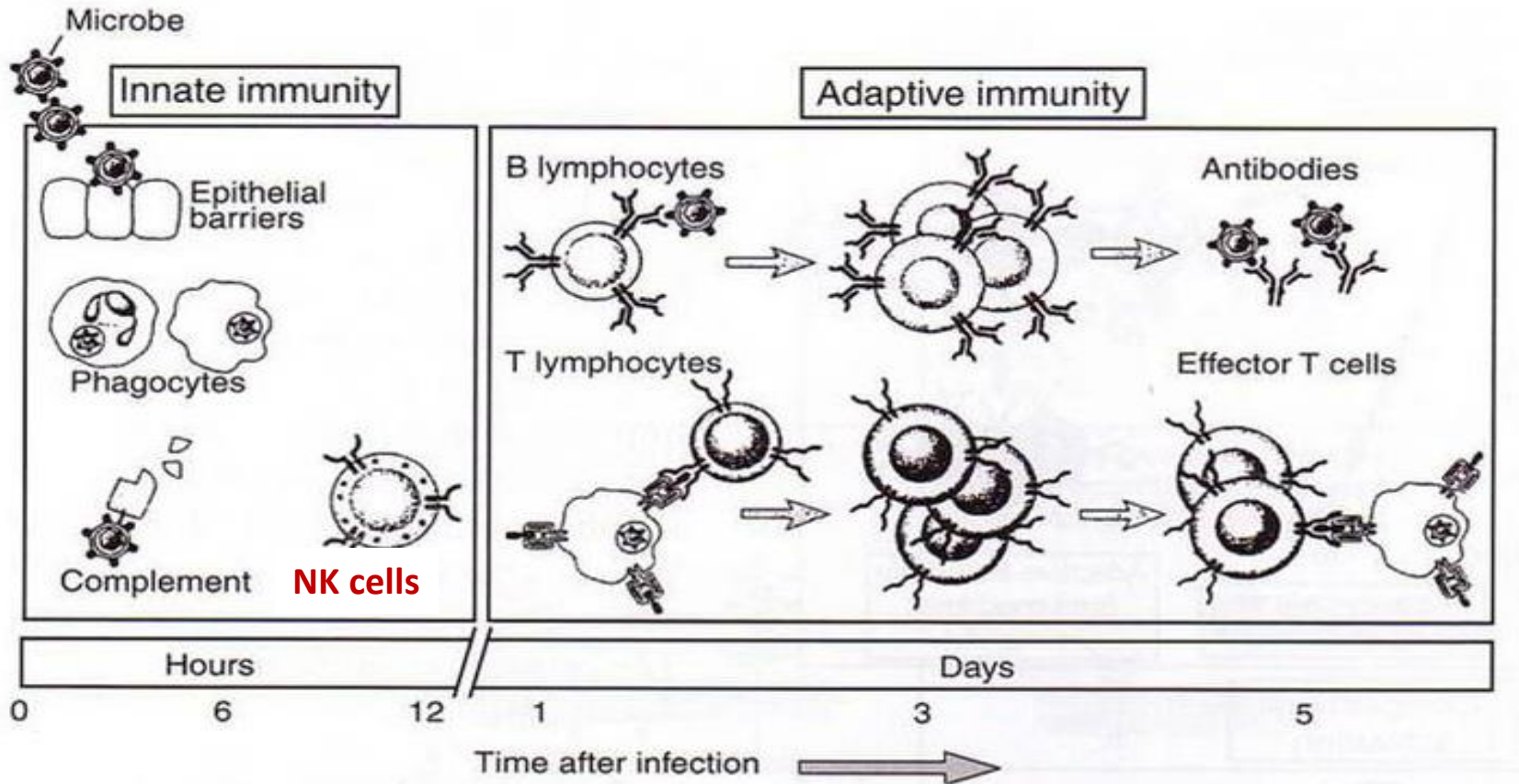


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The UNIQUE immune support ingredient

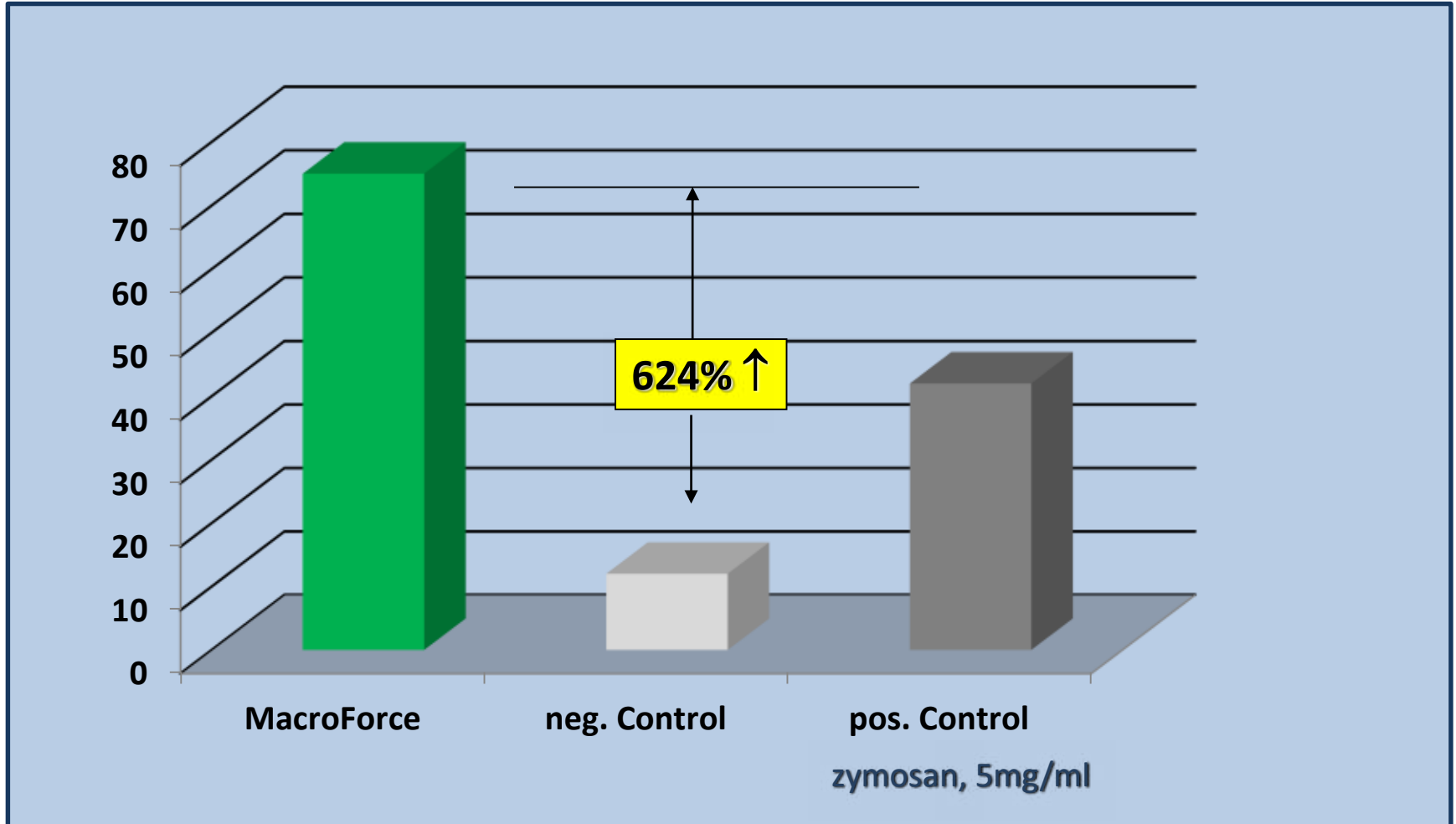
Connects with innate immunity multiple ways: 2) NK cells



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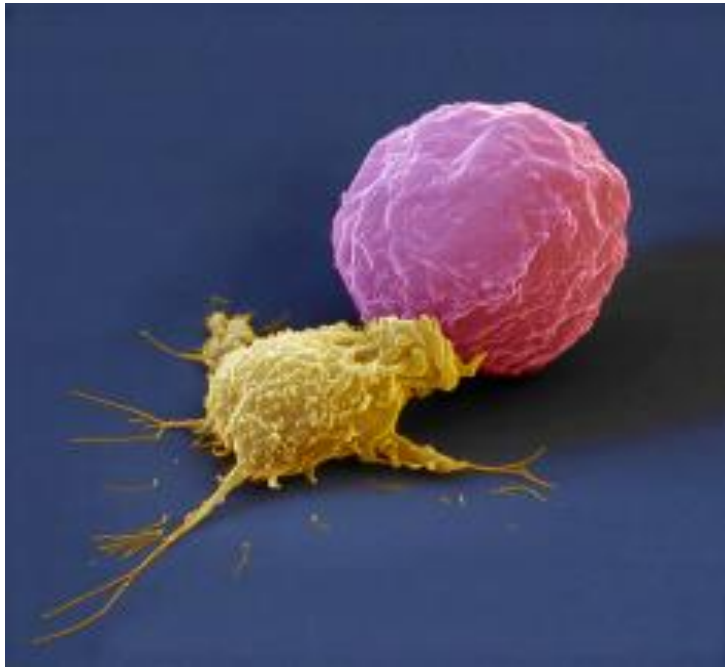
The UNIQUE immune support ingredient: NK cell activity



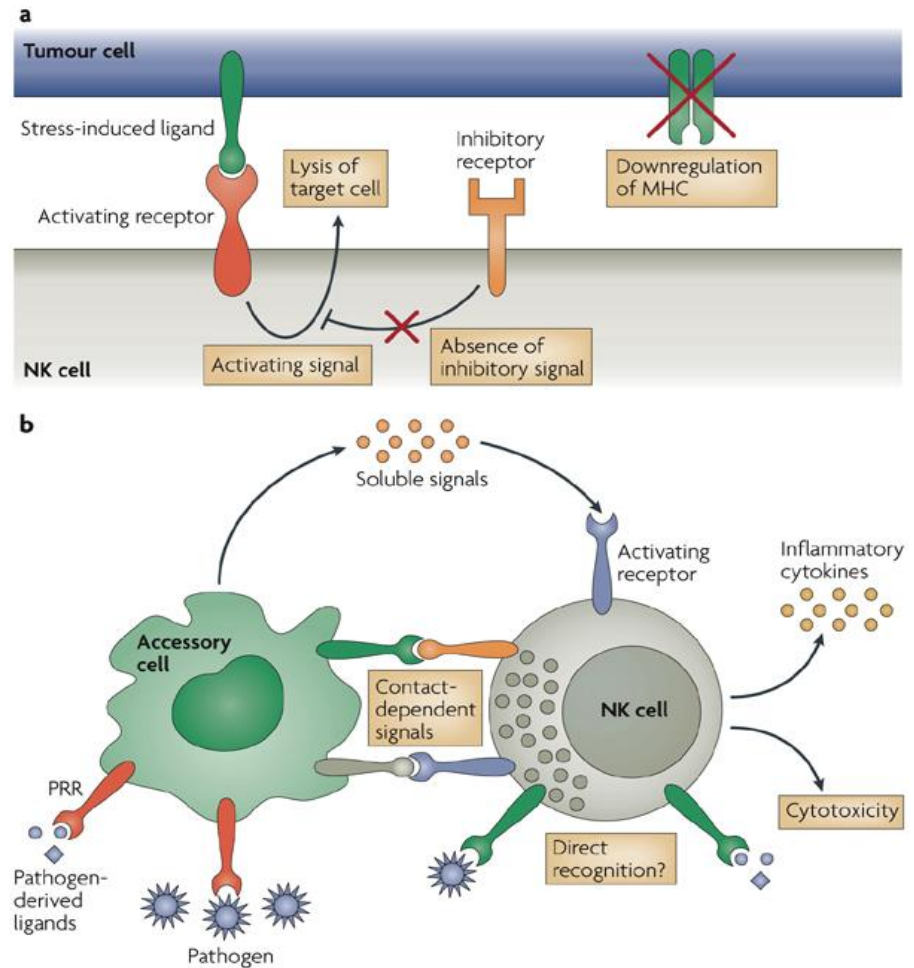
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The UNIQUE immune support ingredient: NK Cell importance



NK cells generally require signals from accessory cells in order to respond to pathogens. Accessory cells become activated following ligation of pathogen-recognition receptors (PRRs) by pathogen-encoded ligands.



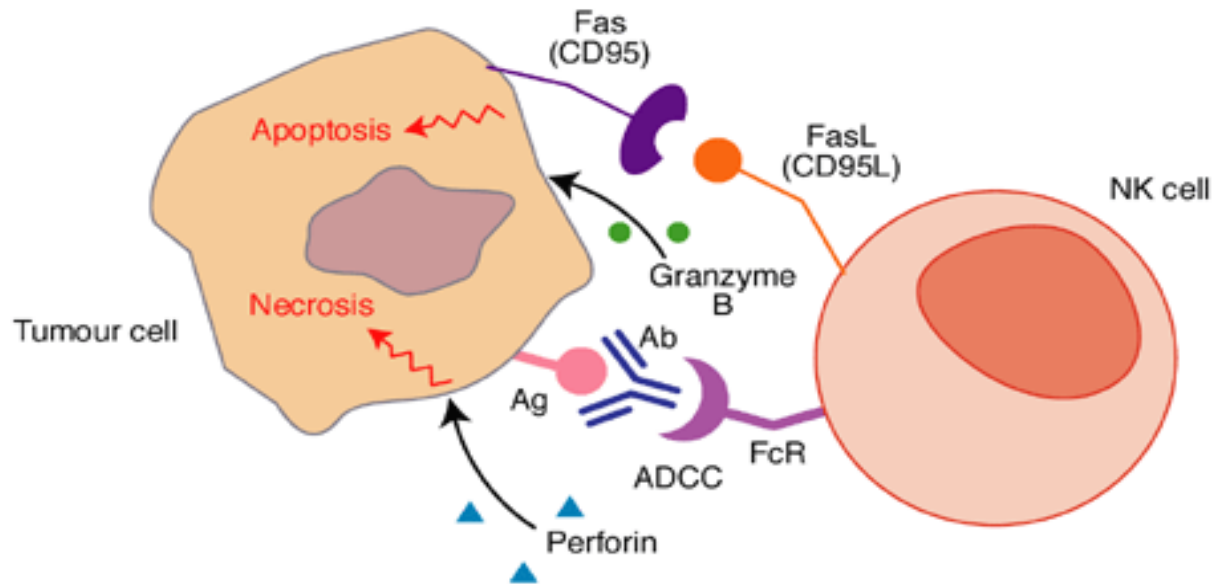
Nature Reviews | Immunology

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Nature Reviews Immunology 7,
279-291 (April 2007)

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The UNIQUE immune support ingredient: More NK Cell importance



The natural killer (NK)-cell response to tumour cells

Expert Reviews in Molecular Medicine ©2003 Cambridge University Press

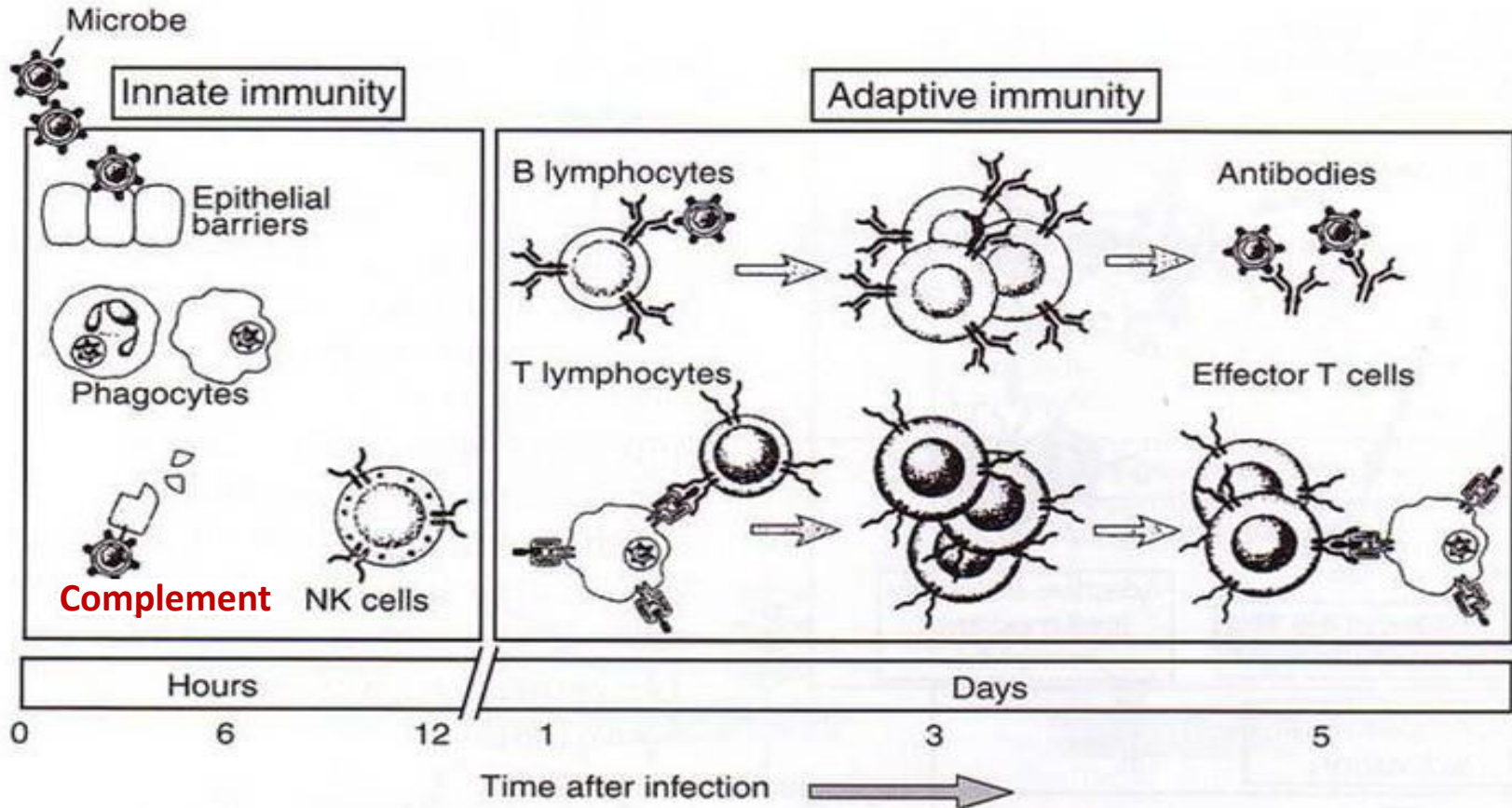
The natural killer (NK)-cell response to tumor cells. NK cells kill tumor cells through mechanisms that involve: antibody (Ab)-dependent cellular cytotoxicity (ADCC), in which the Fc portion of an Ab bound to antigen (Ag) on the tumor cell surface binds to Fc receptor (FcR) on the NK cell; Fas (CD95)–Fas ligand (CD95L) interaction; and release of perforin and granzyme B molecules, which cause apoptosis/necrosis of the tumor cell.

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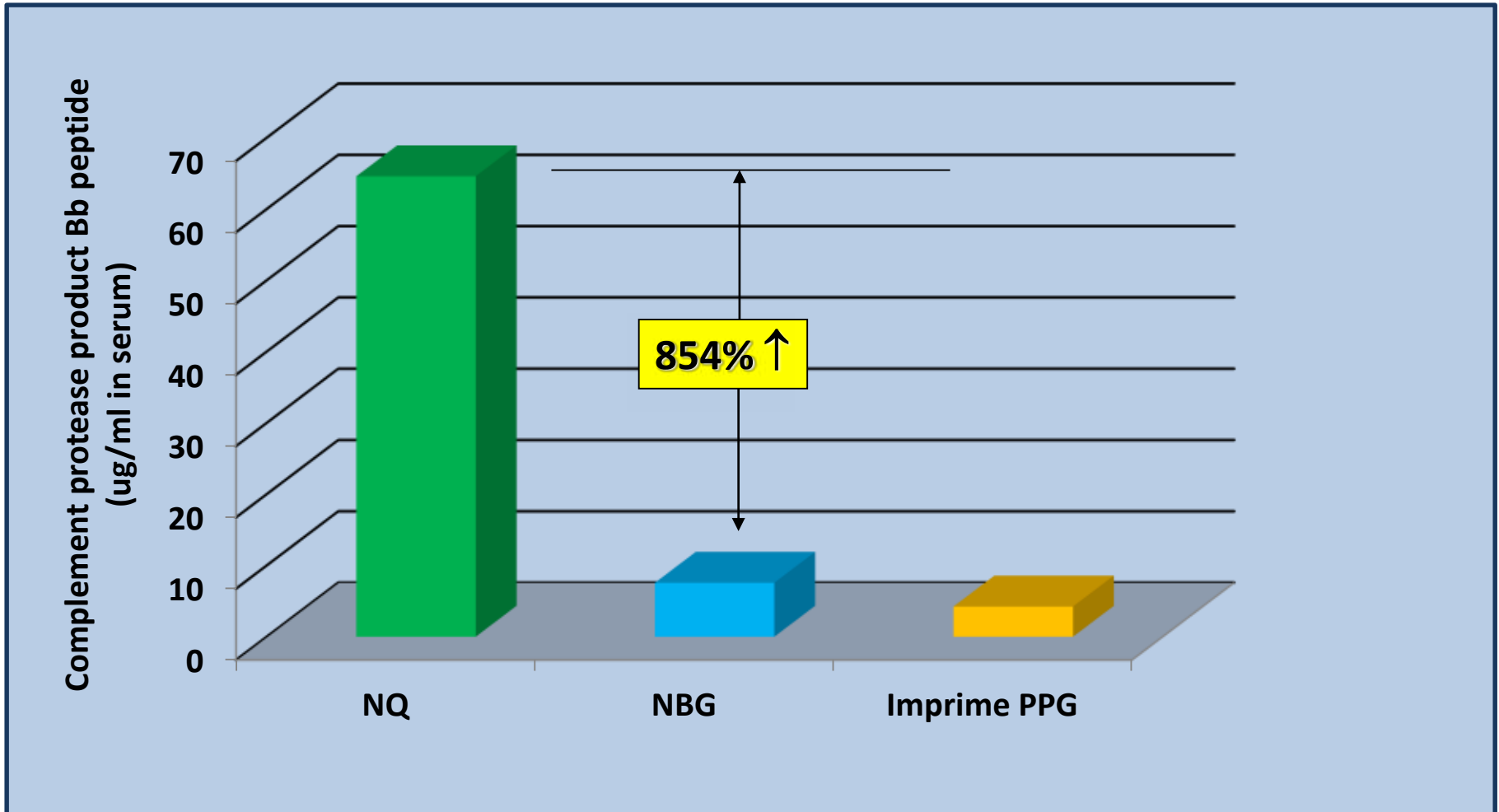
Connects with innate immunity multiple ways: 3) Complement



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The UNIQUE immune support ingredient: activates Complement

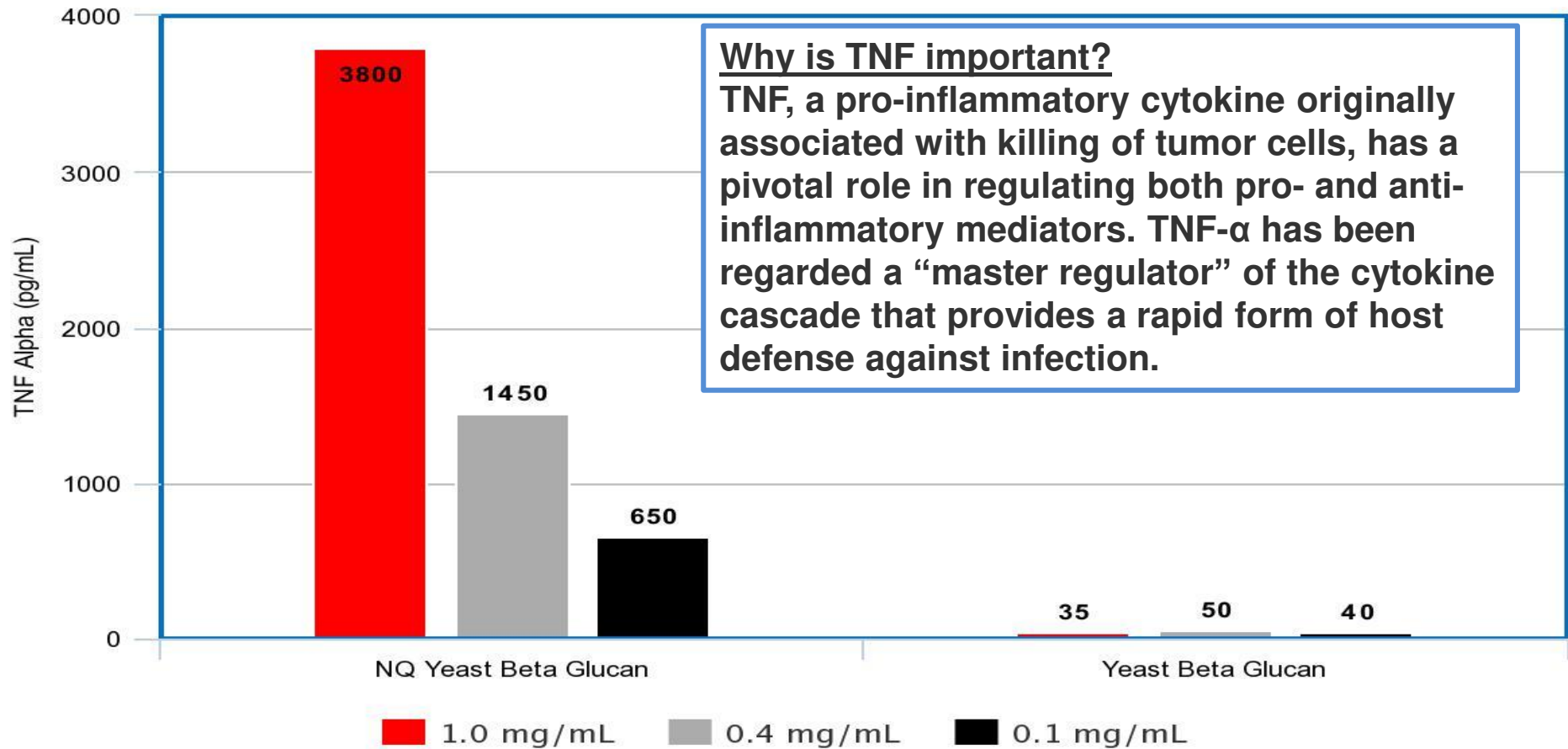


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NEW DATA

Immudyme Nutritional NQ

Whole Blood Assay: TNF alpha levels at 5 hrs in the presence or absence of Beta Glucan Preparations



meta-chart.com

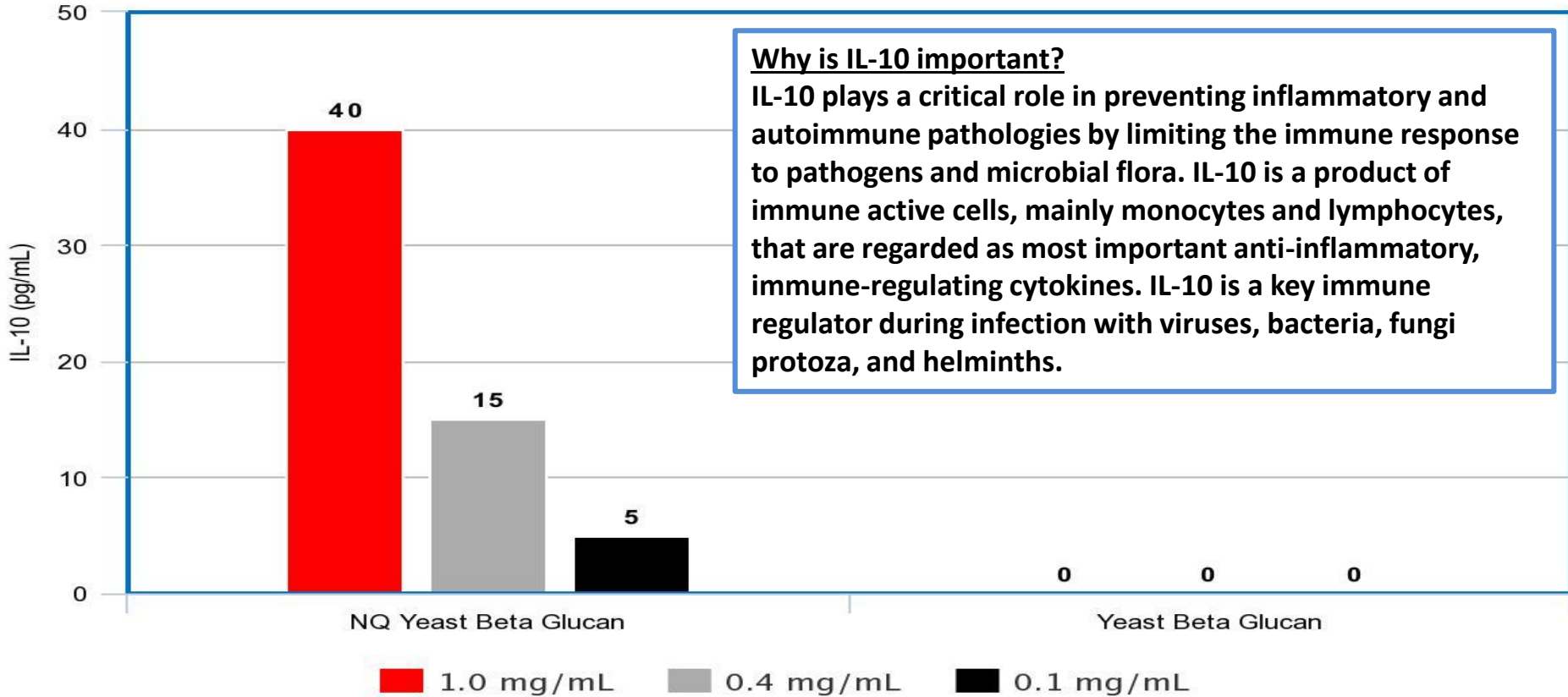
Immudyme
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NEW DATA

Immudyne Nutritional NQ

The UNIQUE immune support ingredient

Whole Blood Assay: IL-10 levels at 5 hrs in the presence or absence of Beta Glucan preparations



meta-chart.com

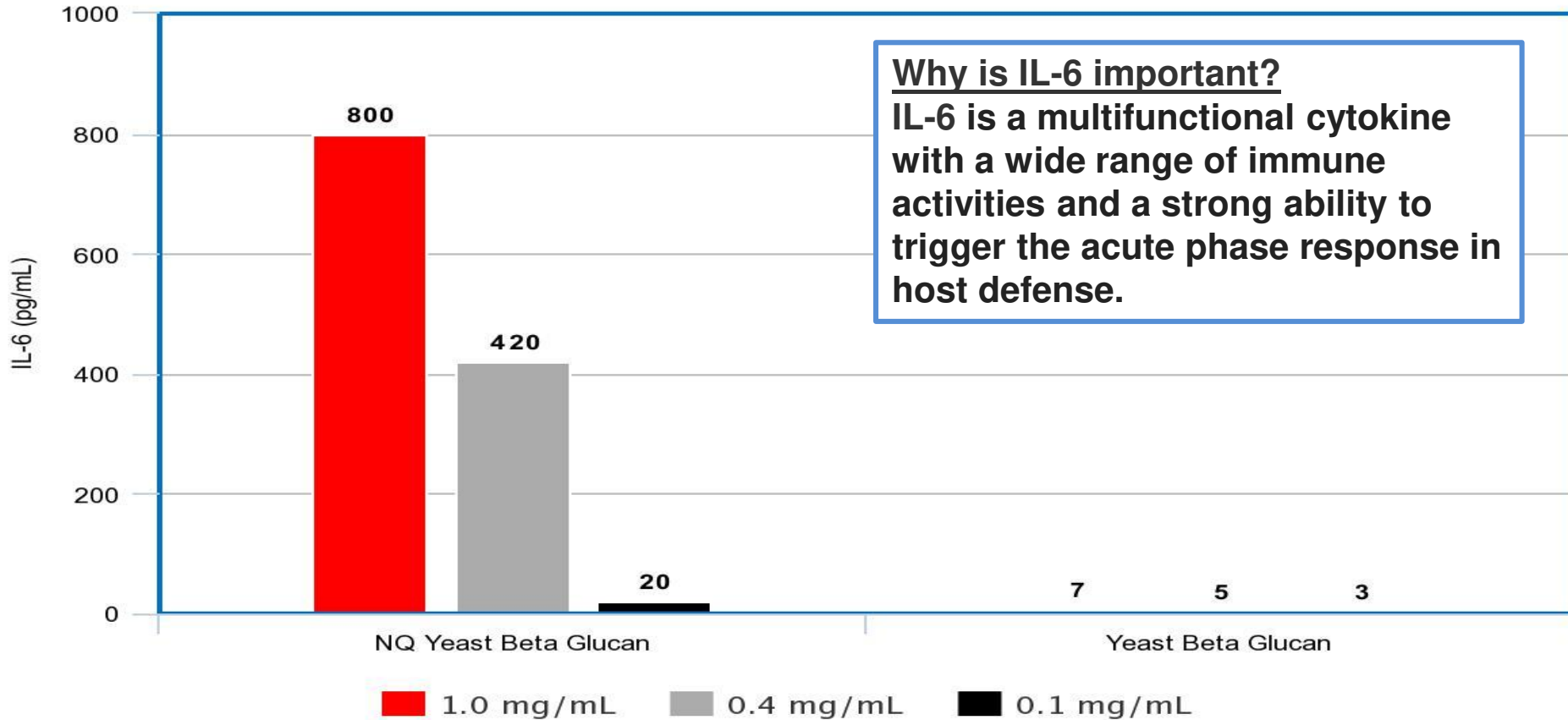
**Immudyne
Nutritional NQ™**

NEW DATA

Immudyne Nutritional NQ

The UNIQUE immune support ingredient

Whole Blood Assay: IL-6 levels at 3 hrs in the presence or absence of Beta Glucan preparations



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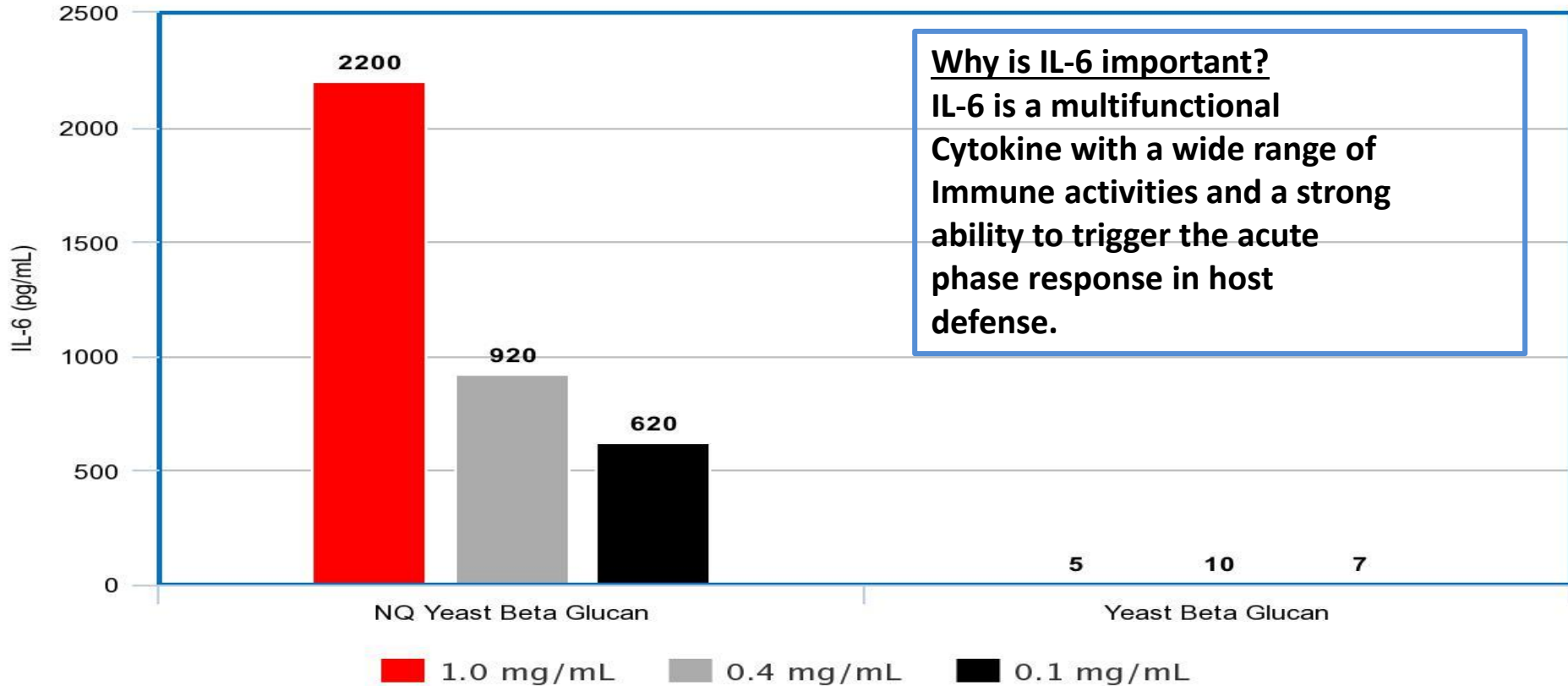
**Immudyne
Nutritional NQ™**

NEW DATA

Immudyne Nutritional NQ

The UNIQUE immune support ingredient

Whole Blood Assay: IL-6 levels at 5 hrs in the presence or absence of Beta Glucan preparations



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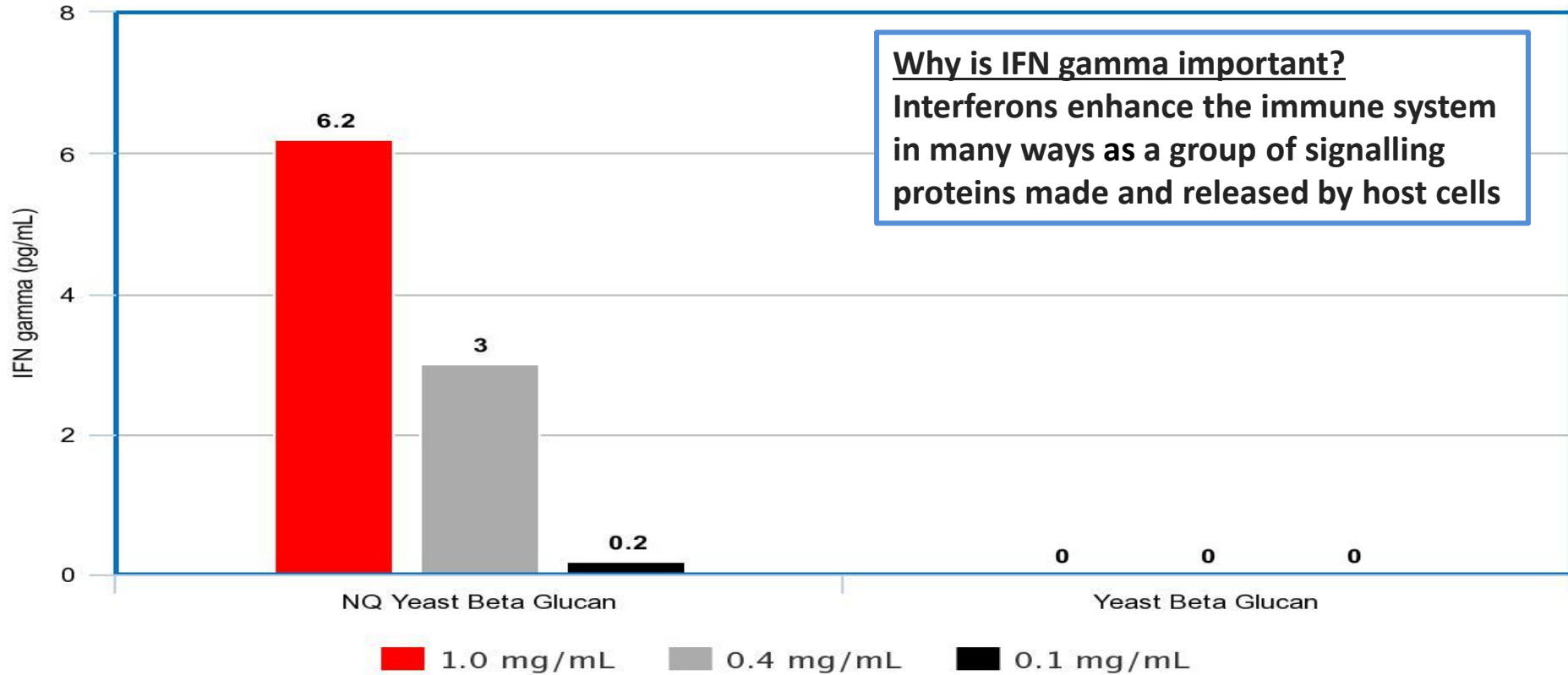
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NEW DATA

Immudyme Nutritional NQ

The UNIQUE immune support ingredient

Whole Blood Assay: IFN gamma levels at 5 hrs in the presence or absence of Beta Glucan preparations



Why is IFN gamma important?
Interferons enhance the immune system in many ways as a group of signalling proteins made and released by host cells

meta-chart.com

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Importance of the Complement activation and immune health

These tests were conducted at National Jewish Health in Denver, Colorado and led by Dr. Manuel Galvan, Dr. Jaclyn Dennis and their team, considered to be the leading Complement Laboratory in the world. Their Advanced Diagnostic Laboratories (ADx) are fully accredited by CAP, CLIA, ISO15189 and compliant with U.S. Food and Drug Administration Good Manufacturing Laboratory Practices (GLP), 21 CFR 58. National Jewish conducted these test to measure Complement Activation. According to National Jewish, “Complement is the immune system’s first line of defense against infection. In addition to killing invading microbes, Complement also is a strong modulator of inflammation.” The Activation of the Complement system is critically important for overall immune health. It is a benchmark for how well a particular compound demonstrates its capacity to modulate the immune system. This very recent (June, 2019) data from National Jewish above confirms that Immudyne Nutritional NQ is best in class.

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What the Doctors Say:

Joseph DiTrollo M.D., Senior Professor of Surgery and prominent Urologist at The Stone Center of New Jersey, has been using Immudyne Nutritional for 7 years adds: “I take Immudyne Nutritional every day and recommend it my patients. Immudyne helps modulate the immune system to prioritize what’s important in life. It brings the mindset to the immune system to normalize immune response for overall immune health.”

Alan B. Weitberg, M.D., and Professor of Medicine at Boston University, Boston, MA., who conducted an Immudyne Nutritional independent Clinical Study:

“My patients and I have been taking Immudyne Nutritional for over 10 years. It is a safe, well tolerated daily ingredient.”

Sven Rohmann, M.D. PhD, who has served as Global Head Oncology at Merck Serono and is a world-wide expert on the immune system:

“I have personally observed all Immudyne NQ batches for over 10 years, and theirs is a track record that always, consistently produces the best. Only Immudyne has the pure, reliable beta glucan, with the proper clean molecular structure necessary to achieve the desired reliable result.” Dr. Rohmann is now the CMO of Immudyne Nutritional.

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Clinical evidence

Treatment	Cancer Type	# Patients	# Relapse
None	Breast Stage II	9	2 (8.7%)
	Ovarian Stage II	4	0
	Cervical Stage II	10	3 (13%)
Beta Glucan	Breast Stage II	10	0
	Ovarian Stage II	4	0
	Cervical Stage II	12	0

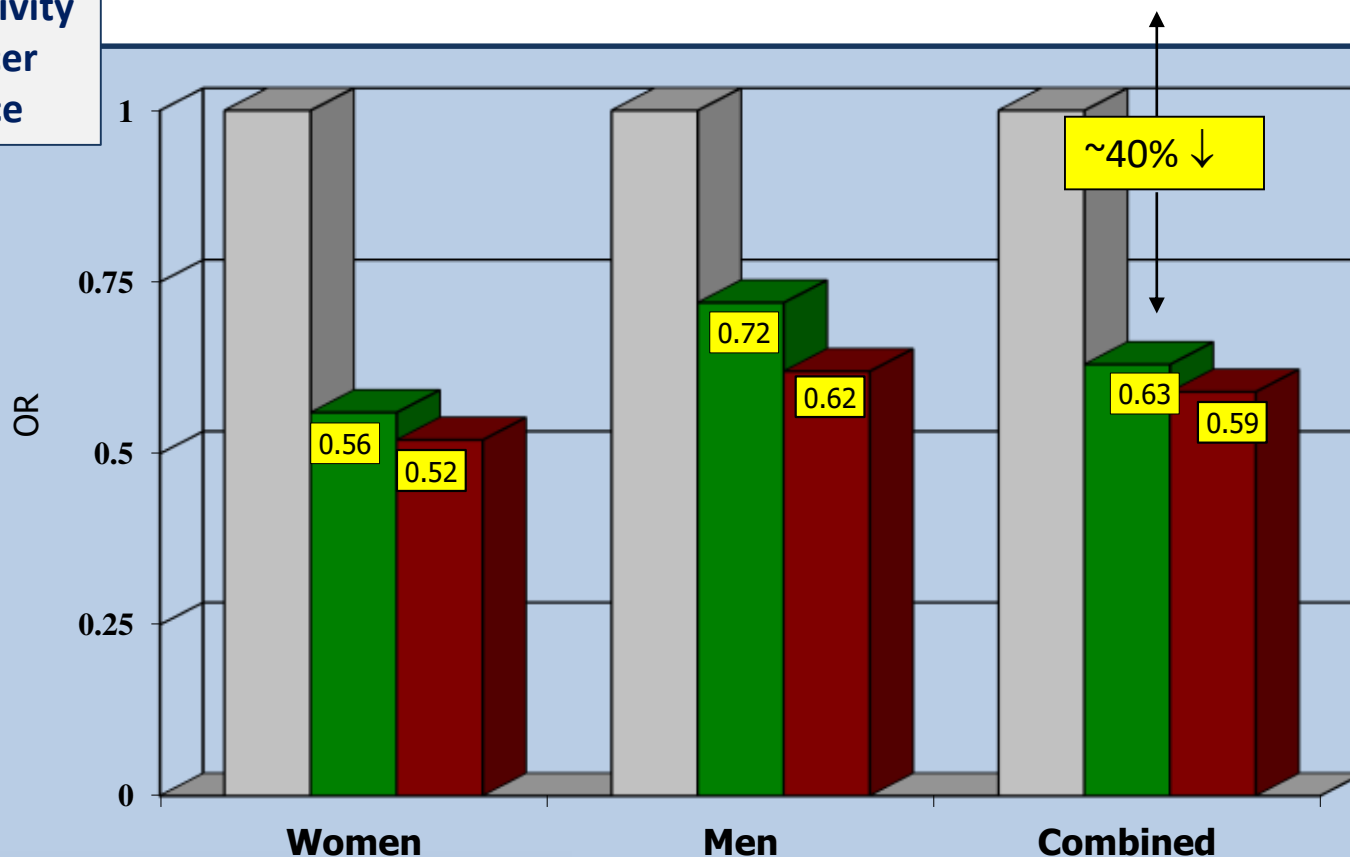
“We have treated patients with breast, ovarian and cervical with 7.5 mg of Immudyne Nutritional/day and found that in treated patients there was no recurrence of cancer, whereas in the non-treated group there was a recurrence rate of 22%. We also treated terminal cancer patients with 15 mg of Immudyne Nutritional/day and demonstrated a decrease in mortality with time. “

Hiroiku Ueno, MD President of Asahi Alternative Clinic, Japan

Immudyne Nutritional NQ

The UNIQUE immune support ingredient

NK Cell Activity
and Cancer
Incidence



N=3625 Japanese; Duration=11 yrs

Low Med High

Immudyne Nutritional NQ™

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Clinical Phase I Study at Boston University

This trial (n=20) demonstrates that β -(1,3)/(1,6) D-glucan is extremely well-tolerated in patients with advanced malignancies receiving chemotherapy. No adverse effects or toxicities were reported by any of the patients.

A significant number of patients reported a sense of well-being while taking the glucan.

There clearly was some amelioration of the blood counts in patients taking the glucan as compared to the pre-treatment mean counts indicating an improvement in haematopoiesis.

A phase I/II trial of beta-(1,3)/(1,6) D-glucan in the treatment of patients with advanced malignancies receiving chemotherapy . J Exp Clin Cancer Res. 2008; 27(1): 40.

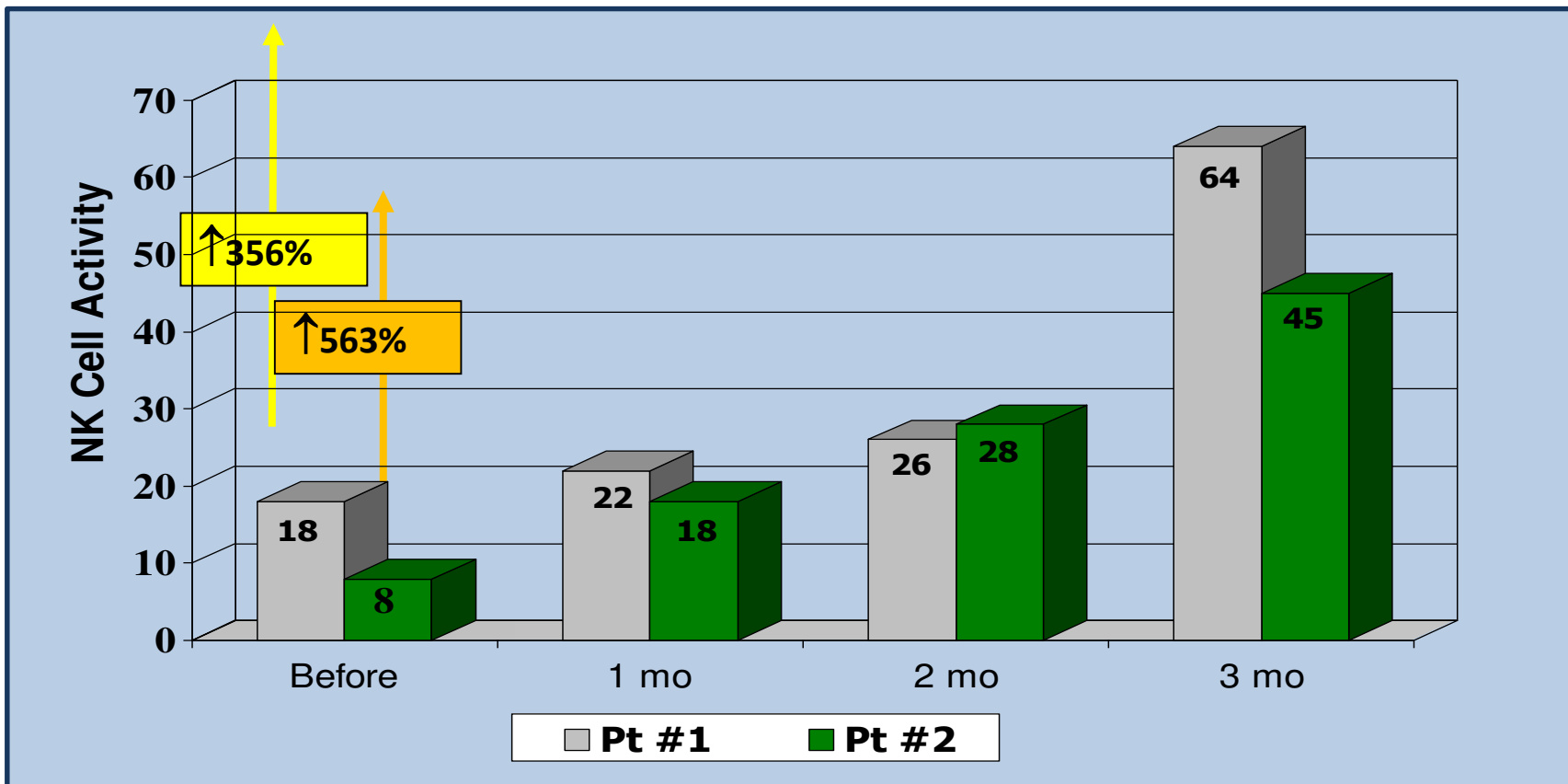
Alan B Weitberg

Address: Department of Medicine, Roger Williams Medical Center, Providence, Rhode Island and Boston University School of Medicine, Boston, Massachusetts, USA

Immudyne Nutritional NQ

The UNIQUE immune support ingredient

15 mg/d applied to two terminally-ill cancer patients

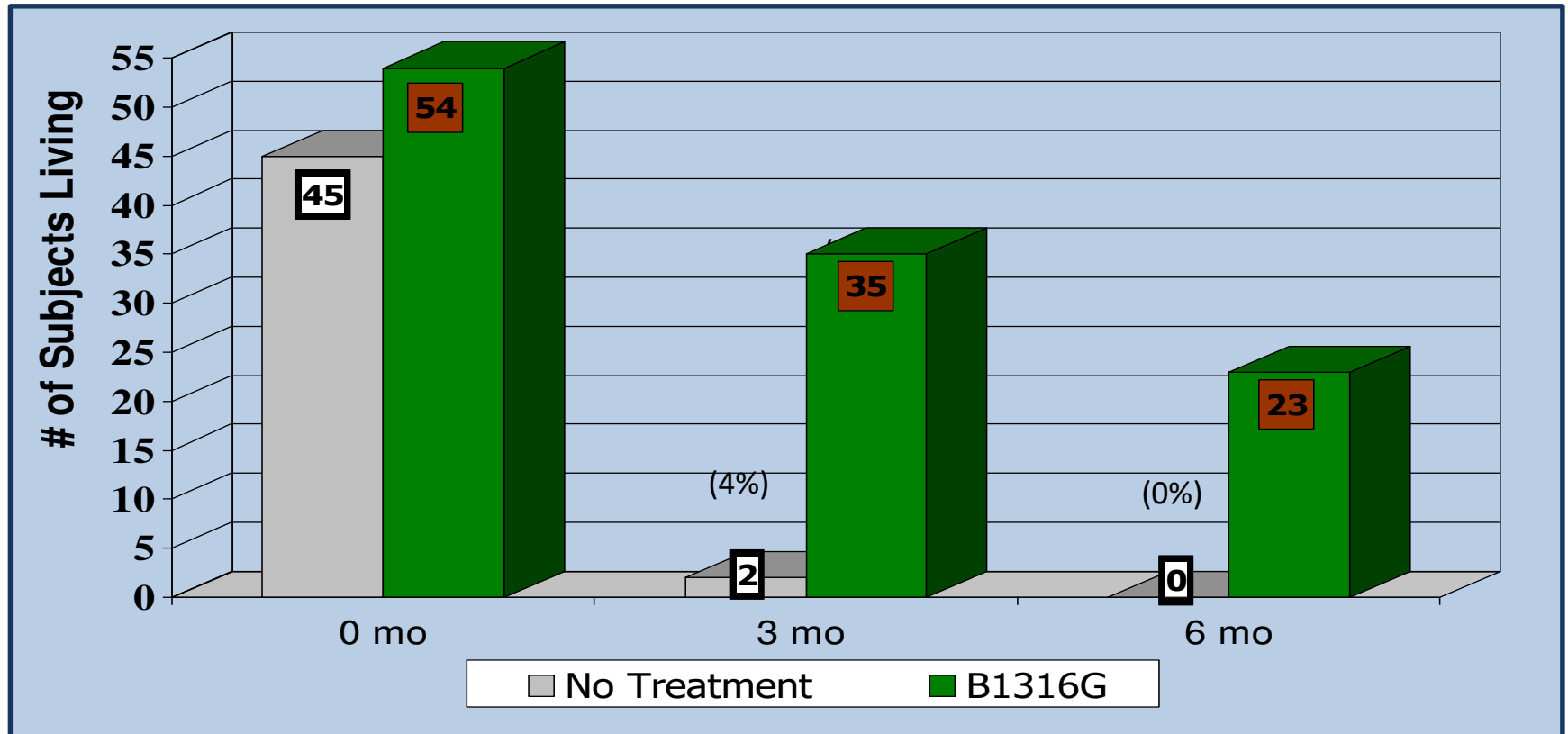


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15 mg/d applied to 54 terminally-ill cancer patients

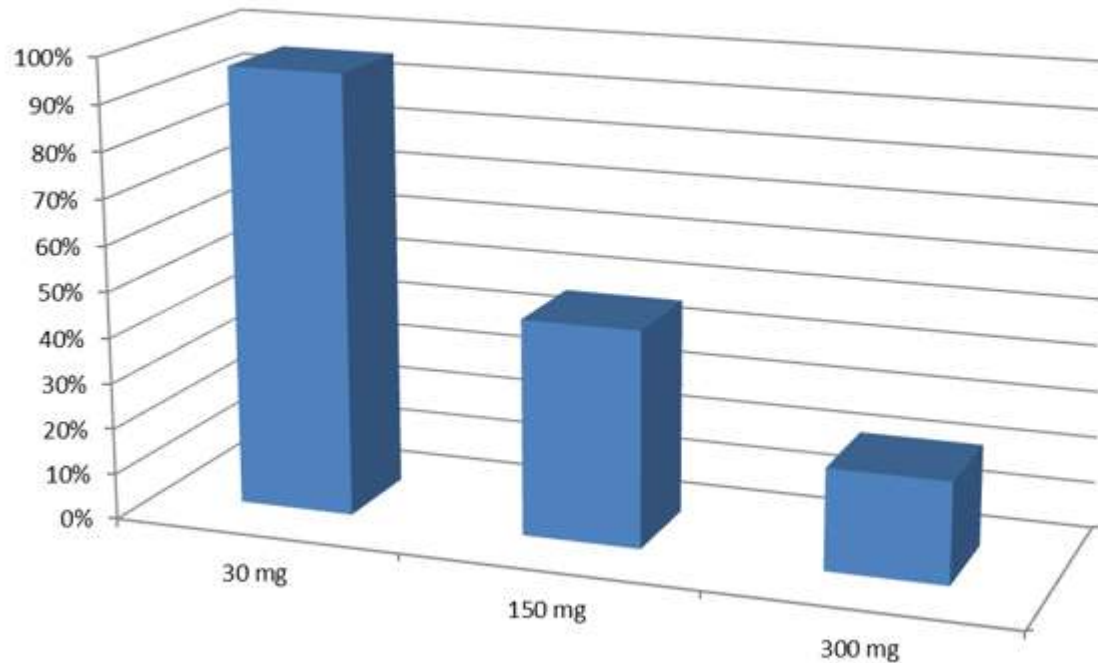


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Effective Dosing



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The **UNIQUE** immune support ingredient: in sum

- Immudyne Nutritional NQ: **UNIQUE**, scientifically proven ingredient that potentiates, modulates, and helps to normalize the immune response.
- Enabling the immune system to fully support overall immune health.

Additional Immudyne references and studies are available upon request.

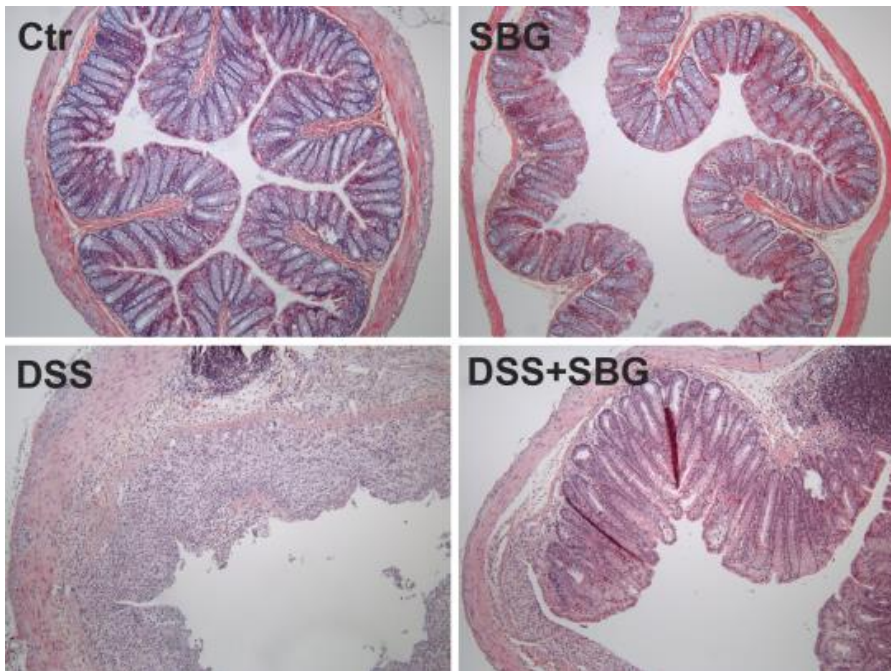
Immudyne Nutritional owns its manufacturing facility in the USA. Tasteless and odorless.

Kosher, Halal, organic compliant, contains NO yeast by-products or stimulants. GRAS status in the USA, and Food Approval in Europe.

**Immudyne
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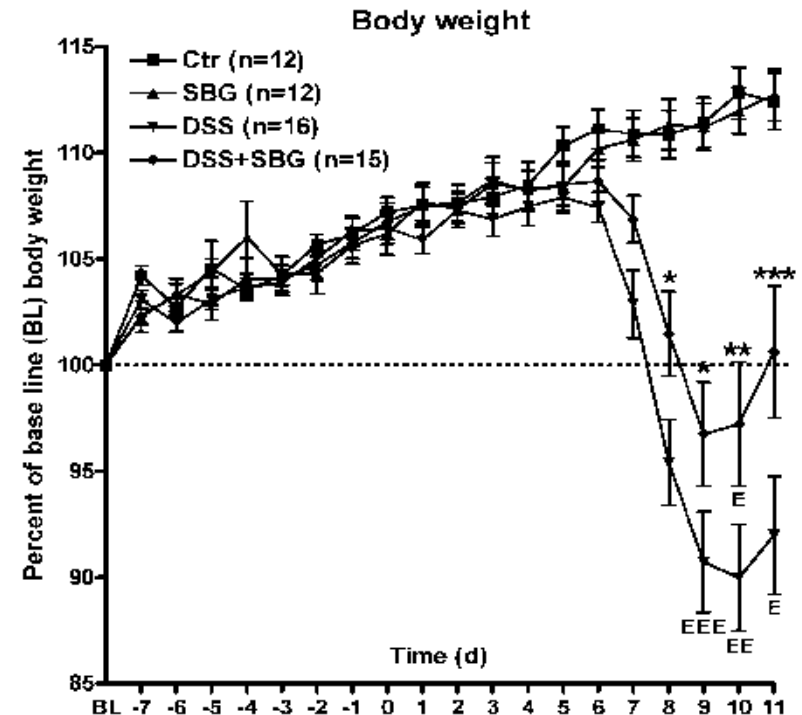
Proof of concept – IBD

YBG in the treatment of ulcerative colitis



YBG protects against DSS-induced colitis, and has effect on epithelial proliferation and intestinal restitution

Oral YBG treatment stimulates expansion of Peyer's patches and mesenteric lymph nodes (not shown)



	Pretreatment		Induction		Acu/Rec
Ctrl		H ₂ O		H ₂ O	H ₂ O
SBG		SBG		SBG	SBG
DSS		H ₂ O		DSS	H ₂ O
DSS+SBG		SBG		DSS+SBG	SBG

*P<0.05, **P<0.01, ***P<0.001, 2-way ANOVA

Immudyne Nutritional NQ: Selected References

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