ProImmune® is the patented composition of amino acids University-proven in in vitro tests to increase bodily Glutathione levels, providing the building blocks your system requires to maintain optimal production of Glutathione, the Master Antioxidant. This Dietary Supplement feeds your immune system in the manner nature is designed to utilize its elements.

ProImmune® is now available as a powder. Commercial applications in the value-added foods segment are unlimited. Medical practices can add this natural, nutritional dietary supplement to their patients’ health regimen, promoting optimal health.

*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.
ProImmune®: Details 1/3

• “Glutathione is the body’s main powerhouse for defusing and disposing of free radicals...”
  1 Jean Carper, Stop Aging Now, Harper-Collins Publishing © 1996, p124

• U.S. Patent RE39734 description:
  “Nutritional or Therapeutic Compositions to Increase Bodily Glutathione levels”.

• ProImmune® is not Glutathione, which is a small tripeptide molecule, but the vital precursors for
  the intracellular synthesis of Glutathione, widely recognized as The Master Antioxidant.

• ProImmune® comprises amino acids (l-cystine, glutamine, glycine) and a cofactor, a special
  selenium compound (selenomethionine or selenocystine).

• ProImmune® is physiological. ProImmune® is not a synthetic. The components are natural to the
  body, and combined in a patented equation to facilitate Glutathione synthesis intracellularly.

• ProImmune®’s Immune Formulation 200® is listed in the 2009 Physicians’ Desk Reference (PDR),
  page 2585, with image of the package on page 321.

• ProImmune® is mildly sweet white powder with no aftertaste that can be sprinkled on foods or
  added to beverages. ProImmune® contains no carbohydrates, filler, additives, or preservatives.

• “If you deplete Glutathione, the cell disintegrates and loses its immune activity.”

• ProImmune® is supported with scientific university research demonstrating it to be effective,
  physiologically and economically, in increasing intracellular synthesis of Glutathione and raising
  levels of this Master Antioxidant: “Proof of Principle.”

• The Research Centers in Minority Institutions (RCMI), a consortium of 18 medical research
  institutions, has committed $17.5M annually, funded by the National Institutes of Health
  (NIH), after their initial study of ProImmune®, to research and conduct clinical studies regarding
  ProImmune®’s influence on various aspects of health, including aging. The contract is for five (5)
  years and a total of $87,500,000.00.

• Recent research results from Charles R. Drew University of Medicine and Science and David
  Geffen School of Medicine at UCLA showed the effects of Spermine introduction to HASM cells,
  comparing results of three different treatments of the cells. Performance of oxidative stress-reducers
  in ProImmune® versus glutathione and NAC showed ProImmune® surpassed the compound NAC
  in protecting human aortic smooth muscle cells from Spermine induced apoptosis. And cells treated
  with ProImmune® carried out their normal functions with minimal interference.

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• Extensive university research to understand what the introduction of RE39734 in the cell represents is underway.

• Glutathione has a turnover rate in the body every 36 hours; the body’s cellular reservoirs of usable Glutathione need to be replenished, under ordinary conditions, with the components that ProImmune® provides (see above), the same components partially provided by our diet, for the synthesis of Glutathione intracellularly, as nature has designed.

• Would you expect to consume components of ProImmune® in certain foods that you ordinarily eat? Yes, but to maintain Glutathione levels will depend on the quality and quantity of those certain foods.

• The two cytosolic enzymes which are essential for the amino acids to re-assimilate and form Glutathione are only present in the cytoplasm of the cell (intracellularly).

• How to get Cysteine safely, efficiently and economically into the cell was the challenge and the scientific impasse. The answer was to use Cystine (which is actually two Cysteines yoked in a disulfide bond) as a safe transport of Cysteine into the cell.

• You will notice that ProImmune® does not completely hydrolyze (dissolve in water), although it is conveniently carried in colloidal liquids (e.g., V-8 Juice, milk, etc.). In water, the indissolvable part is the amino acid Cystine, which only releases its two Cysteines when it enters the cell. Nevertheless, as soon as Cystine meets your mucosal membranes (beginning in the mouth) it begins to be absorbed into the cell, where it releases the two Cysteines. Then your cells can begin synthesizing Glutathione.

• Dr. Albert B. Crum’s invention foresaw Cystine as being the primary systemic carrier of Cysteine, hence this coupling’s being the reason why Cystine could function as the primary carrier of Cysteine... the Cysteine unprotected molecule (with its thiol group) was too active, too labile, too oxidizable, too toxic to be converted into Glutathione or directly obtain intracellular status. However, once it was able to attain the intracellular milieu, this Cysteine would be met with the two cytosolic enzymes which could bind all components into the first and second stages of Glutathione synthesis.

• Dosing: the brilliance of nature has designed intracellular Glutathione synthesis with shut down mechanisms through enzymatic action. Once the cell’s reservoir is filled with the optimal level of the necessary components to maintain Glutathione replenishment, the unutilized components are reassigned within the cell to protein formation or other nourishment; the body is thus
protected from overdose with the components supplied to manufacture Glutathione, delivered by the components of ProImmune®, or the daily diet.

- Historically, attempts to assist Glutathione replenishment (since 1888) have included:
  - Oral Glutathione, which the Autism Research Institute has acknowledged that only 10 to 15% of the administration can survive the gastrointestinal tract’s enzymes (trypsin and pepsin).
  - Intravenous, effective but short-lived, given the turnover rate of Glutathione; it’s also expensive (reported as $1000-$3000 per dose), labor intensive, and an aggressive treatment.
  - Both large molecule administration utilizing constituent vital amino acids in colostrum and undenatured whey, and nasal/mucosae administration provide short term and local advantage.
  - N-acetylcysteine (NAC) has for years been the most-often used method to increase bodily Glutathione levels; NAC is a synthetic, not natural to the body; the recent university research referenced has shown ProImmune® to be more effective than NAC.

Glutathione synthesis adjusts to an optimal level on an “as needed” basis. The Glutathione molecule itself cannot be imported into the cell. Glutathione synthesis occurs intracellularly and as per the body’s availability of the required enzymes for that synthesis. This is how Glutathione synthesis is designed to function on behalf of the immune system.
Glutathione
The Master Antioxidant

Indeed, glutathione is the most powerful, versatile and important of these self-generated antioxidants. “It is the master antioxidant,” proclaims John T. Pinto of Memorial Sloan Kettering Cancer Center in New York. Glutathione is the body’s main powerhouse for defusing and disposing of free radicals that bring on the woes of aging. It protects every cell, tissue and organ in the body. Further, it may determine the rate at which you age ...¹

Eating fat boosts your need for glutathione; thus the more fat you eat, the greater your expected deficiency of glutathione.²³

Cells are the bricks with which all creatures are built—there are 300 trillion of these bricks in each of our bodies.⁴ Established research indicates that Glutathione synthesis takes place in every cell. Being in every cell gives an indication of the importance Nature places on this compound.⁵⁶

¹ Jean Carper, Stop Aging Now, Harper-Collins Publishing © 1996, p124
⁶ Glutathione Centennial: Molecular Perspectives and Clinical Implications. Ed. Taniguchi N. Part V. Transport of Glutathione. Bannai, S, Tetsuro, I, Takada A. “GSH is synthesized in two steps catalyzed by gamma-glutamylcysteine synthetase and GSH synthetase, respectively, and mammalian cells are provided with these enzymes to synthesize their own GSH.” Page 407
Glutathione: History and Background

Glutathione was discovered in the year 1888. Glutathione is such a ubiquitous and versatile functioning molecule that shortly after its discovery in 1888 by J. de Rey-Pailhade, this small tripeptide molecule was deemed so important with so many vital functions that it was considered coincident with the "origin of life."

Sir Frederick Gowland Hopkins (1861-1947) of Cambridge University is also credited with a role in Glutathione’s discovery and characterization and its name. (See Hopkins, FG and Dixon, M, J Biol Chem [1922] 54, 527-563). He received the Nobel Prize in 1929.

In many ways, glutathione is like a vitamin; glutathione has at least 15 functions, and there is a high turnover of glutathione in the body.

There is a constant turnover of GSH in the body, with the liver occupying a central position in this dynamic flux; turnover of GSH in normal liver, estimated in rodents and humans, approximates 20% per hour.10

Restoring the bodily levels of glutathione involved certain scientific challenges because of the chemical subtleties and technicalities presented by the amino acids involved in its synthesis, which synthesis process can only take place intracellularly. Glutathione is synthesized within every cell of the body.

Dr. Albert Crum, the founder of ProImmune®, understood that L-Cysteine is the most important part of that synthesis process. He also understood that owing to its unstable nature and oxidizability, L-Cysteine needs to be guided safely into bodily cells to participate in Glutathione synthesis. He proclaimed via his Patent that L-Cystine, which is made of two L-Cysteines bound together, is the optimal natural physiologic carrier of L-Cysteine until it passes the cell wall, whereupon the two L-Cysteines can immediately participate in the synthesis of Glutathione. Dr. Dean P. Jones, Director of the Emory University School of Medicine Biomarkers Laboratory, has discussed a cysteine/cystine shuttle in which cystine is transported into cells reduced and released as cysteine. Alternatively, plasma membrane oxydoreductases could use cellular reductives to reduce cystine to cysteine without transport.11

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Glutathione Restoration

Since its discovery in 1888, Glutathione’s importance has been established in over 60,000 peer reviewed articles; its vital and diverse multiple functions have been established \(^{12}\), but Glutathione’s bodily synthesis for optimal restoration had been a daunting challenge and elusive goal.

“Glutathione fights aging through at least two major pathways—your gut and your bloodstream.

**One:** When you eat glutathione, as in food or supplements, it gets into cells of your gastrointestinal tract and sets up a fat-detoxification system on the site, blocking an exportation of ... oxidized fat throughout your body. However, how much glutathione gets to other parts of the body intact is uncertain, because digestive juices break down glutathione into other substances. Thus, glutathione from foods and supplements may not reach the bloodstream and other tissues and organs in sufficient amounts to make a major difference.\(^{13}\)

**Two:** You can boost glutathione in your blood and consequently in all other tissues (indirectly) by consuming the chemical building blocks that form glutathione in the body.\(^{13,14}\)

The medical community has observed, dissected and explored these parameters since the discovery of glutathione in 1888.

No one has been able to access the indirect avenue that introduces the components and chemistry necessary to naturally and physiologically restore glutathione in the body...

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14 Arakawa M., Ito Y., "N-acetylcysteine and neurodegenerative diseases: Basic and clinical pharmacology." *Cerebellum*. 2007 Jan 19:1-7. From Abstract: "...First, this review examines the mechanisms of action of N-acetylcysteine (NAC), an antioxidant and a free radical-scavenging agent that increases intracellular GSH, at the cellular level. NAC can act as a precursor for glutathione synthesis as well as a stimulator of the cytosolic enzymes involved in glutathione regeneration. The chemical properties of NAC include redox interactions, particularly with other members of the group XIV elements (selenium, et.) And ebselen, a lipid-soluble seleno-organic compound..."
Introducing Dr. Albert B. Crum

Dr. Albert B. Crum, research scientist and renowned physician, has found the way to facilitate intracellular glutathione synthesis in the form of Immune Formulation 200®. Utilizing traditional scientific perspectives, Dr. Crum discovered the path that delivers the essential elements required to boost and maintain the natural existing physiology within each and every cell. We can now support natural immune defenses through the introduction of ProImmune® to the system in a daily fashion. This product has been granted U.S. Patent RE 39734, underscoring its unique composition, functionality and immune-support potential. The name of Patent RE 39734 is Nutritional or Therapeutic Compounds to Increase Bodily Glutathione Levels.

According to Dr. Crum, his initial interest in glutathione lay in his interest in the interrelationship between stress and the immune system. With Dr. Crum’s extensive background in chemistry as an undergraduate and later at the Harvard Medical School, he was intrigued by what was observed clinically and what was going on in the body biochemically. He realized that glutathione was a pivotal molecule in the preservation and restoration of the immune system. He felt the approach should be to find a way of restoring the glutathione molecule intracellularly... he felt the best way was to allow the cell to carry out its natural function for which it had been evolved and perfected, namely synthesis of the glutathione molecule with specific enzymes et al. Dr. Crum felt that with the rapid turnover of glutathione, the most important way to achieve the physiological goal would be to facilitate and augment intracellular synthesis, which mechanism had already been highly perfected by years of evolution. Intracellular synthesis presented crucial and highly sensitive problems, because the most crucial entity cysteine could not be delivered into the cell per se.

Implications of Dr. Crum’s invention are most important. This method of glutathione synthesis is reliable, safe, and physiological. Originally, Dr. Crum foresaw the cystine/cysteine interactive reversibility. He did not feel cystine was inert and inactive, notwithstanding it was oxidized. Dr. Crum’s invention foresaw cystine as being the primary systemic carrier of cysteine, hence this coupling’s being the reason why cystine could function as the primary carrier of cysteine. Dr. Crum’s patent is also an economic avenue for replenishment of bodily glutathione.

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Breakthrough: Immune Formulation 100™

Through ProImmune, LLC, Immune Formulation 100™, based on Dr. Crum’s first patent, 6,667,063 B2, delivered a combination of undenatured whey and colostrum—known to be rich in the amino acids the body needs to synthesize glutathione. It also contains selenium which is a crucial co-factor required to activate glutathione, once it is synthesized intracellularly. These building blocks naturally and physiologically maintain the potential performance of the body’s immune system. This dietary supplement creates an immune support system for healthy function.

A December 18, 2003 article in The Wall Street Journal about the problems facing the food industry confirms the value and promise of Dr. Crum’s Immune Formulation from a marketing as well as health standpoint. The article quoted one agricultural expert as saying, “the U.S. is good at producing tons and tons of safe, but mediocre stuff.” The food industry today concentrates on low fat or sugar-free products, promoting apparently healthier versions of time-honored brands. Organically produced foods are the most celebrated trend in the food industry for the past decade. Immune Formulation, however, represents a certifiable innovation to food production that has enormous marketing potential for branders and profit margins for producers.

Immune Formulation 100™ is currently available as an essential ingredient in Emuno Bar, marketed by NHance™ LLC, Brooklyn NY. The delicious recipe was developed by The Culinary Institute of America. Emuno Bar can be found in value-added health food and/or nutrition stores.

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Immune Formulation 200® has been issued U.S. Patent RE 39734. The unique properties include the ability to maintain effectiveness under almost any environmental concerns (freeze it, boil it). This stability confers these benefits to any and all food product recipes.

In addition, it can be ingested directly to deliver all its benefits.

Immune Formulation 200® is being marketed directly to the medical community and the consumer as ProImmune®, sold in 100 gm packages. This dietary supplement creates an unprecedented immune support system for healthy function.

ProImmune® is also being marketed to bring its antioxidant benefits to food products. The ingredients in ProImmune® can bring “value added” branding considerations to products, which represents one of the fastest growing and recognized segments in the food product markets.

Published industry reports on this new category of food products within the “value added” sector is estimated to be a $39 billion industry.\(^{15,16}\) (By way of comparison, the annual market for Omega3 oils is expected to reach $7 billion by the year 2011.)\(^{15,17}\)


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Commercial Licensing

ProImmune® is a Dietary Supplement developed with a revolutionary nutritional composition to increase bodily Glutathione levels\textsuperscript{18, 19, 20, 11} that could have important impact on our health, our economy and your market share.

The ingredients in ProImmune® can bring “value added” branding considerations to products, which represents one of the fastest growing and recognized segments in the food product markets.

To understand the potential impact of ProImmune® on our immune support systems and healthy function, globally recognized medical research institutions have committed efforts within their fields to explore, research and study the possible benefits of this patented product.

The decision of The Culinary Institute of America was made to create immune support recipes for clients of The ProImmune Company that obtain a License from ProImmune® for one of its Immune Formulations. The name of the Institute is then permitted in a prescribed manner on packaging of such product. Such permission is believed unprecedented in the Institute’s history.

Immune support, physiologically, separates ProImmune® and your product within the marketplace.

The patent insures your market position.

And the benefits you can bring to your product’s marketing efforts will be continually fueled by research results that define and redefine the immune support health benefits you might offer your patrons through your product when utilizing ProImmune® as the integral ingredient.

\textsuperscript{18} U.S. Patent RE 39734: Nutritional or Therapeutic Compositions to Increase Bodily Glutathione Levels, July 17, 2007.
\textsuperscript{11} Ibid Jones, et al.

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Opportunity/Sales to Medical Practices, Consumers

ProImmune® is a Dietary Supplement, a revolutionary nutritional composition that increases bodily Glutathione levels intracellularly.

To understand the potential impact of ProImmune® on our immune support systems and healthy function, globally recognized medical research institutions have committed efforts within their fields that will explore, research and study the possible benefits of this unprecedented development. Funding is provided through the National Institutes of Health (NIH).

Examining the possibilities of this physiological immune support product opens new avenues to positively affect optimal health with ProImmune®. It’s economical and convenient, a powder that is mildly sweet, without any aftertaste.

ProImmune® delivers immune support, physiologically, separating it within the market.

ProImmune® is listed in the 2009 Physicians’ Desk Reference (PDR), page 2585, with image of the package on page 321.

Ease of administration and economy expand the possibilities for optimal health.

The patent ensures your market position.

Consider the potential benefits to be brought to your medical practice’s efforts as the support behind ProImmune® and the understanding of its benefits expands through research. ProImmune® represents an economic, convenient avenue to increase bodily Glutathione levels, supporting the immune system.

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18 U.S. Patent RE 39734: Nutritional or Therapeutic Compositions to Increase Bodily Glutathione Levels, July 17, 2007
21 Ibid Jones, et al.

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ProImmune’s Contribution to Research and Charity

The potential for Immune Formulation 200® to impact the body’s ability to produce Glutathione on an intracellular level has become the subject of a License donation to the Program Directors Association of Research Centers in Minority Institutions (RCMI). RCMI, a consortium of 18 medical research institutions, has committed $17.5M annually, funded by the National Institutes of Health (NIH), after their initial study of ProImmune®, to research and conduct clinical studies on oxidative stress, and ProImmune®’s influence on various aspects of health, including aging. The contract is for five (5) years and a total of $87,500,000.00. The Harvard Medical School will also be the recipient of five Patent RE39734 Licenses.

Drew University of Medicine and Science in partnership with a team from the Laboratory of the David Geffen School of Medicine UCLA reported the results of its first study at a meeting of the American Federation for Medical Research in Carmel, CA, February 2008 (see Research Results page).

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RCMI has committed $17.5 million/year for research to study, learn, understand and define the effectiveness of Immune Formulation 200® in increasing bodily Glutathione levels.

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This commitment underscores the medical research community’s belief in the revolutionary potential of the antioxidant benefits to be derived from Immune Formulation 200®.

In addition, in their commitment, RCMI underscores their interest with the economic dimension this discovery could provide.

Dr. Crum has donated the five Licenses for Immune Formulation 200® to RCMI to facilitate this important, far reaching immune support research.

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Initial Research Results: RCMI

On February 01, 2008, initial pre-clinical in vitro laboratory research results on the effectiveness of Immune Formulation 200° in regards to oxidative stress were presented at the American Federation of Medical Research Western Regional Meeting. Scientists Indrani Sinha-Hakim, Ruoqing Shen, Paul Lee, Albert Crum, and Keith Norris represented the research done at The Division of Endocrinology, Charles R. Drew University and David Geffen School of Medicine at UCLA.21 (Abstract available on our web site)

Executive Vice President of Health Affairs and Research

April 18, 2008

To: ProImmune, L.L.C.

Re: American Federation for Medical Research. Presentation Summary (January 29 -February 1) of Patent RE39,734 with various Controls.

Title: “Evaluation of Glutathione Precursors in Modifying Metabolic and Cellular Response to increased Oxidative Stress.”

1. In the presence of human aortic smooth muscle (HASM), RE39,734 increased the level of Glutathione in the muscle cells—“Proof of Principle.” Two other Glutathione precursors were also assessed: N-acetylcysteine (NAC) and intact Glutathione. The patented product performed better than the NAC and better than the intact Glutathione molecule per se, which could not increase the level of Glutathione in the muscle cells to the same extent.

2. When the toxin Spermine (uremic poisoning) was introduced into the HASM cells without RE39,734, the cells died, consistent with the toxic effect of Spermine. By contrast, when the toxin Spermine was introduced into the HASM cells which contained RE39,734, the Spermine effect was neutralized and the cells survived with no evidence of Spermine induced toxicity.

3. Beyond the neutralization of the Spermine, which effectively saved the HASM cells from cell death, the cells containing RE39,734 were thereafter also found to be able to carry out their normal function of protein synthesis (utilizing the amino acid [13C]Alanine).

4. RE39,734 with L-Cystine, a physiologically stable L-Cysteine carrier, surpassed the L-Cysteine compound NAC in protecting human aortic smooth muscle cells from Spermine induced apoptosis.

Extensive additional research is underway.

Keith C. Norris, M.D., FACP, FASN
Professor and Executive Vice President for Health Affairs and Research
Charles Drew University of Medicine and Science
President, Research Centers in Minority Institutions Program Directors’ Association
Clinical Research Center Satellite
11705 Deputy Yamamoto Place Suite B
Lynwood, CA 90262

21 “Evaluation of Potential Compounds in Modifying Metabolic and Cellular Response to Increased Oxidative Stress”, Abstract presented to The American Federation for Medical Research, Western Regional Meeting, for research conducted at The Division of Endocrinology, Charles R. Drew University and David Geffen School of Medicine at UCLA. February 1, 2008.

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There have been 13 vitamins identified by scientists in history, the existing list a result of determinations from 285 years ago, never amended since.

The validity and benefits of Immune Formulation 200® are so innovative and real that the categorization of Glutathione as “Vitamin I” is going forward with the consultation of Dean P. Jones, Ph.D. of the Emory University School of Medicine.

The “I” stands for Immunity or the Immune System.

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Dean P. Jones, Ph.D.

Dean P. Jones is a Professor of Medicine (Division of Pulmonary, Allergy and Critical Care Medicine) at Emory University, Atlanta GA. He is the Director of the Emory Clinical Biomarkers Laboratory and Co-Director of the Emory Center for Clinical and Molecular Nutrition.

Dr. Jones is noted globally as a Glutathione expert, having concentrated his career in the importance, effects, possibilities and benefits of Glutathione replenishment toward our better health. His research has lead to various patents assigned to Emory University.

Dr. Jones has joined Immune Advantage World-Wide, Inc. as an expert consulting member in support of the investigation into the possible designation of Glutathione as a Vitamin.
ProImmune has an Exclusive Contract with The Culinary Institute of America

The Culinary Institute of America (CIA) is considered to be one of the world’s foremost food science organizations. In 1996-7, CIA made the strategic decision to become known for “value added” foods, recognizing that their future lay in immune-support-based recipes, as this area showed the most potential promise to deliver “value added” to the consumer.

Simultaneously, Dr. Crum developed and patented Immune Formulation 100™. CIA recognized that this product could help establish its position in the “value added” foods/recipes world. Thus began CIA’s ongoing relationship with Dr. Crum and The ProImmune Company, L.L.C.

Subsequently, Dr. Crum developed and patented Immune Formulation 200* (patent RE 39734 granted July 17, 2007) which may confer its immune system support benefits to recipes because of its stability within the chemical and environmental/temperature ranges normally encountered with various recipe formulations. CIA has concluded a contract with The ProImmune Company, L.L.C. that adds benefit to food recipes licensed to include Immune Formulation 200* and to provide potential marketers with CIA’s good name, standing and commitment.

A third party that purchases a licence to use Immune Formulation 200* may utilize ProImmune’s contract with CIA to have CIA create their recipe. Upon completion of the recipe by CIA and its world-wide resources pursuant to the third party’s direction, that party shall have the right to use the name of The Culinary Institute of America, in a manner specified by The ProImmune Company, L.L.C. and CIA, in labeling and advertising.

Since CIA is a not-for-profit organization whose primary goal is culinary education, product endorsement or promotion is not considered part of CIA’s mission. Therefore, the use of the CIA name on labels for, or in press releases associated with any retail products resulting from that recipe, shall always read as follows:

Recipe developed by The Culinary Institute of America as an industry service for The ProImmune Company, LLC.

*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.
Frederic H. “Fritz” Sonnenschmidt 01/02

Fritz Sonnenschmidt is a Certified Master Chef, author/editor of The Professional Art of Garde Manger, Dining with Sherlock Holmes, The American Harvest, and Tastes and Tales of a Chef: Stories and Recipes, as well as a television personality, appearing on PBS in six seasons of Cook Secrets of the CIA and five seasons of Grilling Maestros. His lectures and cooking demonstrations are immensely popular, especially on kosher food, garde manger and charcuterie.

Fritz began his culinary career with an apprenticeship in Munich, Germany, which led to extensive international work experiences in hotel and club kitchens, including that of Executive Chef at Sheraton Hotels in New York City.

In 1968 he joined the faculty of The Culinary Institute of America, from which he retired as Culinary Dean in 2002. He is Past National Chairman of the American Academy of Chefs (AAC), the honor society of the American Culinary Federation, and is the Present Chair of the AAC Past Chair Council. Fritz is a repeated Gold Medalist at the Culinary Olympics and international culinary competitions, including the Jerusalem Gold Medal for Culinary Excellence for kosher cooking and the Geneva Gold Medal for cold food display. Fritz is one of the most recognized chefs among his peers and was recently voted into the AAC Hall of Fame. He received a Lifetime Achievement Award from the AAC in 2007.

Fritz Sonnenschmidt is also the Culinary Advisor for The ProImmune Company, L.L.C.

His support is articulated on the following page with his letter for ProImmune.

*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.
From the Office of

Frederick H. “Fritz” Sonnenschmidt, CMC, AAC, HOF

What The ProImmune Company Can Do For Your Company

Consumers are on the alert for innovative, nutritionally beneficial products which have achieved patent recognition. The patent recognition provides market protection when a distributor (Licensee) establishes a market. ProImmune can help your company pave its way into the mainstream market. Ingredient technology to create value-added foods and beverages is emerging as the major development in the food industry.

By using the ingredient Immune Formulation 200® (Patent RE39734) in your product, you can enter the fast-growing value-added market for foods which function to support good health while maintaining good taste. Your value-added product can make certain claims on its packaging in strict accordance with recommendations of your Federal Trade Commission counsel. By virtue of Immune Formulation 200®, your product will have properties to support and strengthen a healthy immune system. A proposed banner added to your product label would be:

U. S. Patent No. RE39734: Nutritional or Therapeutic Compositions to Strengthen and Support Bodily Glutathione Levels

In dry powdered form, Immune Formulation 200® has a very pleasant taste. Its scientific basis makes Immune Formulation 200® one of the best ingredients for your anticipated value-added product.

ProImmune can also offer your company a unique recipe, one that blends your good-tasting product with Immune Formulation 200®. This recipe will be created or enhanced by the world-famous Culinary Institute of America via its Exclusive Contract with ProImmune and by the Institute’s Industry Solutions Group, as an industry service to The ProImmune Company, L.L.C.

After The Culinary Institute creates or enhances your product, the Exclusive C.I.A. contract with The ProImmune Company enables your company to print the following acknowledgment on your new product label:

“RECIPE CREATED BY THE CULINARY INSTITUTE OF AMERICA AS AN INDUSTRY SERVICE TO THE PROIMMUNE COMPANY.”

In addition, ProImmune can provide your company with the latest in flavoring and taste expertise by this world leader in food science. A great combination: a gourmet quality product with value added, nutritional, immune-supporting benefits.

Each of the constituents in Immune Formulation 200® meets the standards of the U. S. Food and Drug Administration for designation as GRAS, which stands for Generally Recognized as Safe for its use in Foods.

It is worth highlighting that Patent RE39734 provides not only immune health support benefits but having a patented ingredient in your product provides infringement protection for the market which you are developing with your creativity, your time and your money investment.

By Frederic H. “Fritz” Sonnenschmidt, CMC, AAC, H.O.F.
Culinary Advisor
The ProImmune Company, L.L.C.
Physicians’ Desk Reference (PDR) Listing

ProImmune”s Immune Formulation 200® is listed in the 2009 edition of the Physicians’ Desk Reference (PDR). The descriptive appears on p2585. The package illustration appears on p321.
Albert B. Crum, M.D. 01/04

Dr. Albert B. Crum is a world renowned Physician/Research Scientist/Psychiatrist/Forensic Expert: Providing Traumatic Stress Assessment, Court Testimony, Psychiatric Consultations, and Independent Medical/Forensic Evaluations. He is also a Distinguished Expert, National Forensic Center.

A Harvard Medical School graduate and a member of Phi Beta Kappa, Dr. Crum has been approved for life full membership in the Sigma Xi, The Scientific Research Society. Approximately 200 of its members have received the Nobel Prize. Being accepted for a full membership requires the nominee to make original or notable contributions to science, which can be verified by peer-reviewed articles or by scientifically acceptable patents. He is a former Captain, U.S. Air Force, and Chief, Neuropsychiatric Service, 2500 USFA Hospital, Mitchel AFB, Continental Air Commander Headquarters. He is a Fellow of the Royal College of Physicians and Surgeons with Psychiatric Certification, and a Diplomate of the American Board of Forensic Examiners, and the American Board of Forensic Medicine. Dr. Crum is a former Clinical Professor of Behavioral Science, Management Science and Adjunct Professor of Base Science (Biological Science, Medicine and Surgery) at New York University.

Dr. Crum developed Immune Formulation 100™:

Title of Invention: Nutritional or Therapeutic Composition or Method to Increase Bodily Glutathione Levels.

Patent No.: US 6,667,063 B2
Date of Patent: December 23, 2003

Dr. Crum developed Immune Formulation 200®:

Title of Invention: Nutritional or Therapeutic Composition to Increase Bodily Glutathione Levels.

Patent No.: US 6,592,908 B1
Date of Patent: July 15, 2003
Amendment (11/181,001) filed:
Patent No.: US RE 39734
Date of Patent: July 17, 2007

Book Publication:
Author, The 10-Step Method of Stress Relief: Decoding the Meaning and Significance of Stress, published by the CRC Publishing Company © 2000, ISBN #0-8493-0063-0. Being reprinted by Stress Watchers Press. The Foreword to the 2nd Edition has been written by The Dalai Lama, Nobel Laureate.

Paper Delivered: The American Chemical Society, August 21, 2007, Boston, MA.
Author, Overcoming the Intracellular Synthesis Impasse of Glutathione –the “Master Antioxidant” of the Immune 1 System. Subtitle: The unique and vital delivery role of Cystine/Cysteine coupling and the importance of the sulphydryl (SH) in detoxifying oxyradicals to preserve cell, gene, and immune health.
Albert B. Crum, M.D. 02/04

B.S., University of Redlands (Calif.) 1953.

M.D., Harvard Medical School, 1957.

Honors: Tutorial Society (admittance limited to 15% of upper half of each class and with
the approval of the HMS Administrative and Promotion Board).
Awarded the Harvard Medical Student Research Fellowship.
M.S., New York University, 1987, Neuroanatomy/Neurosciences
Honors: Master's Degree completed with all As Grade Point Average.

Completed 1958 Internship:
Columbia University 1st Division--Bellevue Hospital, New York City.

Completed 1963 Psychiatric Residency:
Columbia University College of Physicians & Surgeons, Psychiatric Institute of Columbia-
Presbyterian Medical Center, New York City.

National Academic Honors:
Phi Beta Kappa.
Sigma Xi, Life Full Member, The Scientific Research Society.

Specialty Recognitions:
Diplomate, American Board of Forensic Medicine.
Diplomate, American Board of Forensic Examiners.
Life Member and Life Fellow, American College of Forensic Examiners.
Fellow, Royal College of Physicians and Surgeons with Certification in Psychiatry.

Previous Faculty Appointments:
1987-2002 Clinical Professor of Management Sciences and previously Clinical Professor of
Behavioral Sciences, New York University. Departments were combined.

Present Positions:
2000- Present:
President, The ProImmune Company, L.L.C., a company using Dr. Crum’s Patent I
(US 6,592,908B1) and Patent II (US 6,667,063B2) to create immune-enhanced dietary
supplements (Immune Formulation 100™ or Immune Formulation 200™) to increase the
intracellular synthesis of Glutathione.

President, StressWatchers, Inc., a Self Help Franchise (in development) for Stress
Management: Features Lectures, Workshops, Published Materials, plus Interactive CD
ROMs.
Albert B. Crum, M.D. 03/04


Distinguished Expert, National Forensic Center.

Miscellaneous Distinctions:
- Official Representative of the Harvard Medical School to the 350th Anniversary of Harvard University.

Harvard Medical School. HMS ’57 Class Agent. HMS ’57 50th Reunion set historic records for highest percentage and consistency of Class Giving participation.

Author of Handbook for Harvard Medical School Class Agents, © 1985 Harvard Medical School.

Distinguished Lecturer, New York University College of Dentistry, Honor Society/Omicron Kappa Upsilon.

Citizen of the Year Award for Achievements in Medicine and Human Understanding, at Brooklyn Academy of Music, from the Brooklyn Philharmonic.

Outstanding Young Man of the Year Award by Brooklyn Junior Chamber of Commerce.

Honorary Doctor of Science Degree (D.Sc. [Hon.]), University of Redlands (Calif.). Cited “In recognition of conspicuous achievement in Psychiatry and Human Services,” 1974.


The Bicentennial Award, National Jogging Association (for 1,776 miles jogged), 1976.

University of Redlands (Calif.) created the Annual Albert Crum Phi Beta Kappa Essay Award, as the alumnus/ae most representative of the ideals of Phi Beta Kappa.

Jubilee Medallion Award Recipient, University of Redlands (Calif.). “Awarded to the most outstanding Faculty and Students in the 75-year history of the University,” 1983.

Mensa, previously transcultural director.
Albert B. Crum, M.D. 04/04

Academic Honors: Phi Beta Kappa; Delta Alpha Honor Society; Sigma Xi, Full Member, The Scientific Research Society.

Honoree, Hall of Fame and Distinguished Graduate, designated by Omaha, Nebraska’s historic Central High School, 2005.

Consultant to many world leaders and prominent international businesspersons, religious and temporal leaders.

Book Publication:
Author, The 10-Step Method of Stress Relief: Decoding the Meaning and Significance of Stress, published by the CRC Publishing Company © 2000, ISBN #0-8493-0063-0. Being reprinted by Stress Watchers Press. The Foreword to the 2nd Edition has been written by The Dalai Lama, Nobel Laureate.

Military Service:
1959-1961 Captain, U.S. Air Force, and Chief, Neuropsychiatric Service, Continental Air Command HQ, 2500 USAF Hospital, Mitchel AFB.

Marquis’ Who’s Who:
Who’s Who in America
Who’s Who in the World
Who’s Who in Medicine and Health Care
Who’s Who in Finance and Industry
Who’s Who in Science and Engineering.

M.D. = Doctor of Medicine, Harvard, 1957.
D.Sc. = (Hon.) Doctor of Science, University of Redlands, Calif., 1974.
M.S. = Master of Science, New York University, 1986.
D.N.B. = Diplomate, National Board of Medical Examiners, 1958.
F.R.C.P. = Fellow, Royal College of Physicians & Surgeons with Certification in Psychiatry, 1984.
D.A.B.F.M. = Diplomate, American Board of Forensic Medicine, 1998.
F.A.C.F.E. = Life Member and Life Fellow, American College of Forensic Examiners, 1998.
Rosa María Crum

Escuela Nacional de Enfermería, Managua, Nicaragua, 1951.
Post Graduate Study, Loma Linda University School of Nursing, Loma Linda CA. 1954.
Head Nurse and Instructor of Nursing, Hospital Adventista, Puerto Cabezas, Nicaragua, 1955.
Staff Nurse, Beth Israel Hospital, Boston, MA, 1956.
Albert Crum, M.D., P.C., Office Manager, 1970-2005
Burdick Associates and Burdick Associates Owners Corp, Partner, 1979-1996
Real Estate, Historic Properties Restorations, Brooklyn Hts., NY.

The ProImmune Company, L.L.C., Vice President, Registered Nurse and Administrator, 1997-Present.
Immune Advantage World-Wide, Vice President, 2007-Present.

Naomi S. Christman

University of Chicago B.A. 1950.
United Cerebral Palsy, Telethon Department, 1953.
Burdick Associates and Burdick Associates Owners Corp, Partner, 1979-1996
Real Estate, Historic Properties Restorations, Brooklyn Hts., NY.

The ProImmune Company, L.L.C., Vice President, Editor and Administrator, 1997-Present.
Immune Advantage World-Wide, Vice President, 2007-Present.
Alexander Ramon, M.D., M.P.H.

Dr. Alexander Ramon is licensed for Medicine and Surgery, and Clinical Laboratory Director with certification in Bacteriology, Clinical Chemistry, Mycobacteriology, Hematology, Parasitology, and Diagnostic Immunology. His education certifications are Master of Public Health, Columbia University, School of Health, Doctor of Medicine, University of Guadalajara, and Bachelor of Science, St. Francis College.

Dr. Ramon’s professional experiences include Assistant Commissioner, New York City Department of Health and Mental Hygiene (NYCDOHMH), Deputy Assistant Commissioner for Professional Affairs, NYCDOHMH, Medical Director, Public Health Laboratories, NYCDOHMH, Director, Division of Hematology and Transfusion Medicine, Assistant Director, Public Health Laboratories, and Professional Liaison, Public Health Laboratories, NYCDOHMH.

Dr. Ramon is currently Vice President, The ProImmune Company, L.L.C. with responsibilities that include:

* Direction of Divisions of:
  * Quality Control
    * Product purity
    * Manufacturer Laboratory Oversight
    * Assuring Regulatory Compliance
  * Research
    * Protocol Development
    * Assay Formulation
  * Special Operations
    * Military Contracts
To utilize the benefits of immune system support delivered through diet with this unprecedented discovery for physiological Glutathione replenishment, or any questions regarding the possibilities, please contact The ProImmune Company, L.L.C.

The Authentic Premix-in-a-Powder—
for bodily Glutathione—the Master Antioxidant!”

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*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.