SKIN, HEALTH & NUTRITION
YOUR PERSONAL GENETIC REPORT

Protected Health Information
**Name**: PPPPP SAMPLE  
**DOB**: Jan 3, 1950  
**Sex**: Female  
**Ethnicity**: Not Reported  
**Report Date**: N/A  
**Received Date**: Jun 29, 2017  

**Accession #**: H4220787  
**Activation Code**: SKNIQ-TESTP  
**Specimen Type**: Buccal Swab  
**Collected Date**: Jun 1, 2017

**SKIN OXIDATION PROTECTION**  
Antioxidant Response

**SKIN GLYCATION**  
Glycation Protection

**SKIN PHOTOAGING**  
Sun Sensitivity, Sun Sports (Lentigines)  
Freckels (Ephelides), Wrinkles and Collagen, Degradation

**SKIN MOISTURE & HYDRATION FACTOR**  
Dry Skin

**SKIN NUTRITIONAL NEEDS**  
Omega-3 and Omega-6

**SKIN TEXTURE & ELASTICITY**  
Cellulite, Stretch Marks (Striae Distensae), Superficial Veins

**SKIN INFLAMATION & SENSITIVITY**  
Skin Irritants, Sensitivity, Itchy Skin
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SKIN PHOTOAGING

Photoaging refers to aging of the skin as a result of exposure to ultraviolet (UV) radiation over a person’s lifetime. Though photoaging is affected by extrinsic (environmental) factors like gravity or smoking, all skin is susceptible to photoaging with UV exposure. Intrinsic factors, including skin pigmentation and genetics, can also affect the individual’s response to extrinsic factors, thus affecting the degree and type of photoaging. Different types of skin, for example, respond differently to tanning, impacting the likelihood of developing sun spots or freckles, while vitamins and nutrition can affect collagen production. The best defense against photoaging is to understand individual risk factors, maintain proper nutrition and limit UV exposure.
WRINKLES AND COLLAGEN DEGRADATION

Increased Based on your genetics, the risk of developing skin wrinkles is considered INCREASED.

Wrinkles can range in severity from fine lines to deep furrows in the skin. Wrinkling is a sign of skin aging and is caused by both intrinsic factors, such as genetics, hormonal state and skin pigment; and environmental factors such as the passage of time, gravity, chronic ultraviolet exposure, alcohol abuse and smoking. These factors can cause damage to the skin cells and breakdown of supportive structures called collagen in the dermis of the skin. Wrinkling tends to occur after the age of 30, and deep wrinkling is more likely to occur in individuals with darker skin.

Genetic variants in the MMP1 and STXBP5L genes have been associated with increased susceptibility to severe wrinkling.

RECOMMENDATIONS

**ORAL**: Foods containing antioxidants, such as vitamin C + E, zinc, alphanoi acid, green tea, resveratrol, proanthocyanidins (French maritime bark), soy isoflavones, carotenoids, such as lycopene, beta carotene and vitamin A (also isotretinoin), have shown considerable efficacy for skin health. Hyaluronic acid peptides + glucosamine + CoQ10 have been shown to significantly improve skin photoaging damage.

**TOPICAL**: Sunscreens (SPF 30+, UV/IR protection) and antioxidant creams or serums (containing vitamin C + E, CoQ10, green tea + ginko, resveratrol, alpha-lipoic acid, coffee/cherry fruit and others) are baseline defenses for your skin type. Subsequent treatments are exfoliation, moisturization and fine-line reduction with retinoids (vitamin A, tretinoin, isotretinoin, retinol, retinyl palmitate and retinyl proprionate + niacinamide), hydroxy acids and DMAE/dimethylaminoethanol. Hyaluronic acids are increasingly popular skin-firming and plumping agents. There are topical formulations that provide skin health benefits by reducing cellular structural damage, such as products containing synthetic peptides (e.g. argireline + aloe), multiple peptides (+/- urea) and collagen peptides. In addition, there are newer topical products containing growth factors (e.g. TGF + FGF), DNA repair enzymes and stem cells.
SUN SENSITIVITY

Increased Based on your genetics, the sun sensitivity is considered INCREASED, with the potential for increased inflammation and burning.

Sun sensitivity is the production of melanin by the skin in response to ultraviolet radiation resulting in increased pigmentation. Sun sensitivity varies among individuals, and can have both positive and negative effects on skin health. Those who have increased sun sensitivity are at higher risks of sunburn, sun spots, and wrinkles, while individuals who tan easily are at risk of vitamin D deficiency as they may derive less vitamin D from sun exposure.

Multiple risk alleles in the genes, such as MC1R, SLC45A2, SLC24A5, and TYR are associated with increased sun sensitivity. Genetic variants in the MC1R gene have the strongest effect, and individuals carrying these variants tend to exhibit fair skin that is sensitive to the sun, red hair and (often) freckles.

RECOMMENDATIONS

**ORAL**  
Green tea and other foods with polyphenols EGCG, probiotics, vitamin A and/or omega-3/omega-6 fatty acids are all known to have nutritive qualities that help decrease skin inflammatory response.

**TOPICAL**  
Along with standard over-the-counter sunscreen products (SPF 30+) and EGCG creams, high quality results can also be achieved with products containing bemotrizinol or bisoctrizole. In addition, many newer products with allantoin have shown moisturizing effects on dry or burned skin.
Sun spots, or solar lentigines, are pigmented spots that range from millimeters to centimeters in diameter and can appear light yellow to brown in color. They appear on areas frequently exposed to the sun such as the face, arms and backs of the hands. Sun spots are found more frequently in females and typically appear after the age of 50. They are caused by a local growth of pigment-producing skin cells in response to ultraviolet radiation. Sun spots are a sign of skin damage and aging.

Genetic variants in the MC1R and IRF4 genes analyzed in this test have been associated with an increased risk of sun spots. Multiple risk alleles for sun spots exist in the MC1R gene.

RECOMMENDATIONS

**ORAL**: Astaxanthin derived from microalgae and proanthocyanidins (French maritime bark or grape seed extracts) have both been shown to decrease the frequency and size of sun spots.

**TOPICAL**: In addition, creams with individual ingredients, such as hydroquinone, low dose tretinoin, alpha hydroxy acids/glycolic acid, licorice root extract + glabridin, azaleic acid or 1% retinol are effective at sunspot removal. Kojic acid and topical vitamin C are also effective and well tolerated for spot removal.
FRECKLES (EPHELIDES)

Increased Risk Based on your genetics, the risk of developing freckles is considered INCREASED.

Freckles, also known as ephelides, are harmless hyperpigmented spots with distinct borders appearing most often on the face, neck, chest and arms. Freckles are a result of increased production of pigment called melanin in the skin. They typically appear early in childhood but diminish with age, and they can also darken seasonally with sun exposure. Freckles are common in Caucasian populations, and are most frequent in fair-skin individuals with red or blond hair. History of freckling is associated with fair skin, increased sun sensitivity, higher likelihood of sunburn and sun spots (solar lentigines) later in life.

Freckling is most strongly associated with genetic variants in the IRF4 and MC1R genes. MC1R gene is also the largest contributor to a red haired, fair skinned appearance. The degree of freckling often corresponds to the number of MC1R variants that the individual carries.

RECOMMENDATIONS

**ORAL** : N/A

**TOPICAL** : Sunscreen (SPF 30+) should be applied at least twice a day, daily. Tretinoin and hydroquinone creams are considered standard over-the-counter therapies for extensive freckling. Glycolic acid peels, niacinamide, soy, kojic acid/azelic acid and topical vitamin C are all mild and well tolerated for freckle lightening.
Increased Risk Based on your genetics, the risk of developing cellulite is considered INCREASED.

Cellulite, also known as orange peel skin, refers to the bumpy appearance of skin due to uneven fibrous tissue and fat build-up (subcutaneous fat) underneath the upper skin layers. Cellulite mainly appears on the thighs, hips and buttocks, and is present in about 85% of women over the age of 20. Caucasian women are more prone to cellulite than the Asian women, partly due to the differences in diet. Genetic predisposition, hormones changes, gender, ethnicity, age and weight changes contribute to risks of developing cellulite. Genetic variants in the ACE and HIF1A genes analyzed in this test have been associated with the risks of developing cellulite.

Certain Cellulite creams, weight loss diets, direct massage and spa treatments are sometimes beneficial in treating cellulite.

RECOMMENDATIONS

**ORAL**: Recent evidence has shown efficacy of products containing bioactive collagen peptides (BCP) and/or chokeberry juice on the cellulite treatment of normal weight and overweight women.

**TOPICAL**: Most current topical products include 3.5% caffeine. Newer treatments include caffeine + tetrahydroxypropyl ethylenediamine (THPE) + retinol and/or red algae + retinol + glaucine.
STRETCH MARKS (STRIAE DISTENSÆ)

Increased Risk Based on your genetics, the risk of developing stretch marks is considered INCREASED.

Stretch marks, also known as striae distensae, appear initially as red or purple lines on the skin and later as white or silver lines. Mechanical stretching of the skin due to weight loss-regain, obesity, hormonal changes and pregnancy can cause stretch marks. Stretch marks frequently affect the lower back and knees in adolescent males, while they are more common on thighs and calves of adolescent women. During pregnancy, abdomen and breasts are areas prone to developing stretch marks. African American women have a significantly higher risk of developing stretch marks than Caucasian women in the same geographic region.

Genetic factors, such as variants in the ELN, SRPX, HMCN1 and TMEM18 genes analyzed in this test, are also associated with risks of developing stretch marks.

RECOMMENDATIONS

ORAL : N/A

TOPICAL : There are very few clinical trials of topical agents showing positive results in preventing stretch marks. One such study, however, looked at the ingredients hydroxyprolisilane-C + rosehip oil + vitamin E + centella, and obtained significant results.
SUPERFICIAL SPIDER VEINS

Increased Risk Based on your genetics, the risk of acquiring superficial veins is considered INCREASED.

Superficial veins or spider veins are dark purple to blue veins under the skin on the back of the legs that often appear twisted and bulged like cords. Superficial veins affect more than a third of the world population and approximately 23% of US adults. Spider veins can cause pain, aches and itching.

Spider veins are often genetically inherited. Genetic variants in the MTHFR gene analyzed in this test have been associated with an increased risk of superficial veins. Other non-genetic factors include obesity, age, standing and walking upright for long times and hormonal changes.

RECOMMENDATIONS

**ORAL**  : Nutrition that provides ample Co-Q10 may help decrease symptoms of spider veins.

**TOPICAL**  : N/A
SKIN INFLAMMATION AND SENSITIVITY

SKIN IRRITANT SENSITIVITY

INCREASED RISK

Based on your genetics, the risk of skin irritant sensitivity is considered INCREASED.

A high proportion of individuals affected by skin irritants are industrial workers in health, skincare and beauty, food industry and metal-related occupations. Differences in prevalence also depend on age and gender. Although skin exposure to environmental insults is a major cause for skin irritation, there is a strong link with genetic variations in the FLG gene. Certain FLG variants lead to a decrease or loss of the filaggrin protein, resulting in increased susceptibility to skin irritation and contact sensitization to metals such as nickel. Filaggrin is important in maintaining the structure of the skin’s outermost layer called the epidermis, and it is also involved in inflammatory response.

RECOMMENDATIONS

ORAL: Oral over-the-counter antihistamines, such as fexofenadine and cetirizine help relieve any associated itching. Generally, prevention and protection to re-exposure to an allergen is the best treatment.

TOPICAL: Vitamin C + E, or green tea creams have shown efficacy in relieving symptoms for mild irritant cases. Low potency hydrocortisone creams are also good for minor spot use.
SKIN ITCHINESS

Increased Risk Based on your genetics, the risk of persistent itchy skin is considered INCREASED.

Itchy skin is a common symptom in individuals with chronic inflammation, who may experience acute itching and a persistent red rash on creases of elbows or knees. Persistent skin itchiness often starts in infancy, affecting 15-30% of children and 5-10% of adults.

Genetic variants in the FLG gene are the strongest risk factors for itchy skin and allergic sensitizations.

Certain FLG variants lead to a decrease or loss of the filaggrin protein, resulting in dry and fissured skin on the hands and elbows. Filaggrin is important in maintaining the structure of the skin’s outermost layer called the epidermis.

RECOMMENDATIONS

ORAL: Foods rich in vitamin A, vitamin D and zinc may help alleviate persistent itchy skin. In addition, probiotics have shown efficacy in decreasing symptoms, particularly in children.

TOPICAL: Moisturizers/emollients increase hydration of itchy skin and are first choice therapies that should be applied right after bathing. Newer moisturizers that include ceramides and/or filaggrin breakdown products and green tea creams have also shown efficacy; as has colloidal oatmeal and chamomile salves. Oil (rose, avocado, shea, myrrh, coconut) and glycerin products have varying levels of success for itchy skin, more as skin hydration and calming agents. For individuals recalcitrant to moisturizing therapy, corticosteroids are standard of care.
Skim moisture factor

If skin cells are not properly hydrated, dry skin can develop, reducing skin elasticity and creating wrinkles, cracks or flakiness. Usually dry skin is the result of environmental factors like exposure to sun, dry conditions, harsh soaps, hot water or chlorine, but can also be influenced by biological factors like genetic predisposition and nutrition. Dry skin can be uncomfortable and contribute to wrinkle development. Occasionally, more serious dry skin can develop, which can cause severe cracking, redness and flaking.

Healthy skin factors

- **Peptides & Growth Factors**
- **Retinoids & AHAs**
  - Moisturization, Exfoliation & Cell Turnover
- **SPF & Antioxidants & DNA Repair**
  - Protection & Repair
**DRY SKIN**

**INCREASED RISK**

**INCREASED RISK Based on your genetics, the risk of dry skin is considered INCREASED.**

Dry skin is a condition of rough, itchy (occasionally painful) skin with fine scaling and small cracks that occurs at all ages. Dry Skin and low moisture levels may be caused by environmental factors, including dry / cold weather, frequent bathing, which removes skin lipids, malnutrition and certain medical conditions. More severe forms of dry skin may be inherited and appear during early childhood.

Certain FLG variants lead to a decrease or loss of the filaggrin protein causing dryer skin and loss of skin moisture. Filaggrin is important in maintaining the structure of the skin’s outermost layer called the epidermis. The same FLG variants are found in individuals presenting certain skin inflammatory disorders.

**RECOMMENDATIONS**

**ORAL** : Foods containing vitamin C and/or collagen hydrolysate have nutritive qualities that have good efficacy in augmenting skin hydration and elasticity in individuals with mild skin dryness.

**TOPICAL** : For mild dryness, over-the-counter therapy includes standard moisturizing creams. Glycerol and ceramide formulations are also widely used. For more moderate dryness, lactic/glycolic acids (AHA) or AHA plus ceramides or urea are recommended; as are creams with hyaluronic acid and/or pycnogenol (maritime bark extract). Coconut/mineral oils have shown good results as moisture enhancer, and many newer products with allantoin have shown moisturizing effects on dry or burned skin. Individuals with very dry skin may find petroleum jelly or heavy cream or urea very useful. Especially dry skin might require topical Rx products that include vitamin A to help with scaling.
SKIN iQ
FINAL REPORT

NAME/ID:  SEX: F  ACC #: H4220787  DATE: 00/00/0000

POWERED BY
PATHWAY GENOMICS

SKIN OXIDATION PROTECTION

ANTIOXIDATION RESPONSE

Normal Based on your genetics, the antioxidation response is considered NORMAL/AVERAGE.

Antioxidation response is our body's natural ability to detoxify and counteract harmful agents like ultraviolet (UV) rays, environmental pollutants, and toxins produced by the body. Oxidative stress occurs when the antioxidation response is weakened, and is a major factor in skin aging. Oxidative stress leads to breakdown of the collagen that provides structural support to the skin.

Genetic variants coding for the antioxidant enzymes including SOD2, GPX1, CAT and NQO1 have been associated with an increased risk of oxidative stress-induced skin aging, or a decreased antioxidation response.

RECOMMENDATIONS

ORAL: Foods containing vitamin C + E, alpha-lipoic acid, Co-Q10, resveratrol, as well as green tea/EGCG, mushrooms, and coffee berry polyphenols provide good antioxidants and freeradical scavengers for skin protection. Micronutrients lycopene (tomatoes), omega-3 fatty acids (fish oil) and combinations like soy isoflavone + foods with vitamin E are all active compounds that help enhance skin oxidation protection.

TOPICAL: Vitamin C (ascorbic acid), vitamin E, alpha-lipoic acid and niacinamide are the mainstays of topical antioxidant therapy and are components of many creams and serums. Vitamin C + E together (and +/- ferulic acid) are unusually potent. Topical resveratrol (+/- vitamin E and baicallin) and other flavonoids (green tea, caffeic acid) also have antioxidant properties. Newer topical products, such as astaxanthin, apple stem cells + urea + peptides and kinetin, are all active compounds with generally mild effects.
Reduced Based on your genetics, the glycation protection is considered REDUCED.

Glycation is a process by which sugar molecules are chemically linked to proteins like collagen and elastin, lipids and nucleic acids, in the skin cells. These glycation products are referred to as advanced glycation end products (AGEs), and they are implicated in accelerated skin aging and skin inflammation. AGEs can also lead to skin damage, such as loose, cracked and thinned skin. AGE accumulation increases with age and these products become more harmful in combination with UV exposure. Glycation stress, and subsequently skin aging, may be reduced by managing levels of blood glucose, low-density lipoprotein cholesterol, and triglyceride through an appropriate diet.

Genetic factors can also have an effect on AGE levels in the body. Genetic variants in the AGER and GLO1 genes analyzed in this test have been associated with increased AGE levels in both healthy individuals and those with diabetes.

**RECOMMENDATIONS**

**ORAL** : Niacinamide, carnosine and green tea have all been implicated in reducing advanced glycation end products (AGE) in skin.

**TOPICAL** : Topical carnosine and/or niacinamide creams have been shown to decrease the dullness and sallowness of skin from glycation end-products (AGEs), and increase collagen production. Combining products with milk thistle siliibinin plus alpha-lipoic acid have recently demonstrated anti-glycation activity. In addition, truffles and mushrooms have increased antioxidant capability and are now used in high-end topical antiglycation serums and creams.
SKIN NUTRITIONAL NEEDS

Vitamins and minerals are known to play an integral role in the skin's health and complexion. Similarly, new research has shown the importance of antioxidants in general health and specifically their critical role in the way the skin looks, feels and how fast it ages. A balanced diet in combination with appropriate antioxidants and vitamins can help maintain health and slow down the appearance of signs of aging skin. Moreover, preventing chronic sleep deprivation, improving sleep quality, and avoiding risky practices (smoking, alcohol abuse and indoor tanning), can help guard against skin damage.
Increased Based on your genetics, the need for omega-3 and omega-6 foods is considered INCREASED.

Omega-3 and omega-6 fatty acids are polyunsaturated fatty acids (PUFAs) important for aging. Both omega-3 derivative alpha-linolenic acid (ALA) and omega-6 derivative linoleic acid (LA) are essential fatty acids that must be acquired from dietary sources. In the body, ALA is further converted to eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), while LA is converted to arachidonic acid (AA).

Deficiencies in these fatty acids can lead to various skin problems, including scaling and dry skin. Omega-3 fatty acids protect against UV-induced skin damage and reduce inflammation. Both dietary intake and genetic factors can influence fatty acid levels in the body. Most Western diets contain sufficient omega-6 but insufficient omega-3, thus additional omega-3 intake may be beneficial.

A genetic variant in the FADS1 gene has been associated with decreased blood levels of EPA (omega-3) and AA (omega-6).

**RECOMMENDATIONS**

**ORAL** : Increase uptake of foods that contain high amounts of omega-3, including flaxseed, walnuts, fatty fish, marine fish oils, salmon, DHA fortified eggs and milk. Sources of omega-6 are found in olives, nuts, poultry, evening primrose and borage oils.

**TOPICAL** : Omega fatty acids are found in many combination creams and serums. In addition to sunscreen use, omega-3 PUFAs are promising candidates to protect the skin from UVR damage.
Disclaimer
This test was developed and its performance characteristics were determined by Pathway Genomics Corporation. It has not been cleared or approved by the FDA. The laboratory is regulated under CLIA as qualified to perform high-complexity testing. This test should not be regarded as investigational or for research.

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If you have any questions about this report, please call (877) 505-7374.

Assay Method
SKiN iQ™ identifies 55 SNPs associated with skin health. DNA is isolated from (cheek) buccal cells and quantitated. Targeted regions are PCR amplified, enriched and sequenced by next-generation sequencing. Genotypes are reported for each SNP. The outcomes for each phenotype are calculated based on a proprietary weighted allele combinatorial algorithm. Cut off reporting thresholds (RT) are set based on the negative log of p-value for the strongest SNP GWAS-associations (high) and the weakest SNP associations (low). A combined SNP weight (CSW) for each phenotype is calculated based on aggregation of all individual SNP weights, which are statistically significant from published GWAS studies (OR, CI and P-values) and SNP ranking on aggregated public databases (e.g. Phenotype-Genotype Integrator). Other factors may increase a phenotype CSW, such as reproducibility in multiple qualified studies (i.e. studies which use large size and diverse cohorts, as well as appropriate controls). Outcomes for each phenotype are determined as follows.

Risks & Limitations
Pathway is a certified laboratory under the federal Clinical Laboratory Improvement Amendments of 1988 (CLIA) with standard and effective procedures in place for handling samples. However, laboratory error can occur, which might lead to incorrect results. Examples include, but are not limited to, a sample or DNA mislabeling or contamination, failure to obtain an interpretable report, and any other operational laboratory error. I understand that sometimes Pathway's laboratory may need a second sample to complete my testing.

Pathway's CLIA-certified laboratory also has standard and effective procedures in place to protect against technical and operational problems. However, such problems may still occur and examples include, but are not limited to, failure to obtain an interpretable result for a particular SNP. Sometimes it is not possible to obtain a testing result for a particular mutation or marker due to circumstances beyond Pathway's control, in which case it may not be possible for Pathway to conclusively report on a genetic change that might cause or be predictive of a condition. This may mean that Pathway cannot report my results for a particular health trait or other phenotype. Pathway may re-test my sample in order to obtain these results, but upon re-testing the results may still not be obtained. As with all medical laboratory testing, there is a small chance that the laboratory could report false positive or false negative results. A false positive result means that a genotype is reported as being present when it is actually not present. A false negative result means that a genotype is not reported as being present when it actually is present. A tested individual may wish to pursue further testing to verify any results.
The purpose of this test is to provide information about how a tested individual's genes affect their skin conditions and nutritional choices. Tested individuals should not change their diet, physical activity, or any medical treatments they are currently using based on genetic testing results without consulting their personal health care provider. Tested individuals may find that their experience is not consistent with Pathway's selected peer-reviewed scientific research findings of relative improvement for the study group(s). The science in this area is still developing and many personal health factors affect skin health. Since subjects in the scientific studies referenced in this report may have had personal health and other factors different from those of tested individuals, results from these studies may not be representative of the results experienced by tested individuals. Further, some recommendations may or may not be attainable, depending on the tested individual's physical ability or other personal health factors. A limitation of this testing is that most scientific studies have been performed in Caucasian populations only. The interpretations and recommendations are done in the context of Caucasian studies, but the results may or may not be relevant to tested individuals of different or mixed ethnicities.

The association between genetic variant and the information within this report is an active area of scientific research, and future scientific discoveries might alter our understanding of how this information is related to nutrition and skin care treatments.

Based on test results and other medical knowledge of the tested individual, health care providers might consider additional independent testing, or consult another health care provider or genetic counselor.

Test Results Reviewed & Approved by:
Nilesh Dharajiya, M.D.
Laboratory Director
Ingredients are listed followed by product names and content will look like this: "Ingredient: Product Name".

A - Skin Photoaging

Oral:
- Alpha-Lipoic acid: DermaVite®
- Astaxanthin: AlgaLife®
- Hyaluronic acid + Glucosamine + CoE Q10: ViscoDerm Pearls®
- Isotretinoin: Accutane®
- Probiotics: Lactinex®
- Proanthocyanidins: Grape seed extract/TerraVita®
- Resveratrol: Nutricost™

Topical:
- Alpha Hydroxy Acids: AHA Targeted/Spot Light®
- Alpha-Lipoic acid: QAL-100/Jabu’she®
- Azealaic acid: Azelex/Finacea®
- Beetroot extract: CoQ10®
- Centella: Ishakia®
- Coffee/Cherry Fruit: Coffeeberry®, Supremya/Sisley®
- Collagen Peptides: Verisol®, Pro-Collagen Marine Cream/Elemis®
- CoQ10: Night Cream/Acure Organics®
- DMAE: Firming Fluid/Reviva Labs®
- DNA Repair Enzymes: DNA EGF Renewal®
- EGCG Creams: Camilla Care™, Green Tea Skin/Life Flo®
- Glycolic acid: AHA/AHA Soufflé®, AHA/Spot Light®
- Green Tea + Ginko: Ascoderm®
- Growth Factors: HGF Regeneration Booster/Jan Marini®, TGF + FGF Anti-Aging Serum/Reluma®, Skin Serum/AQ Skin Solutions®
- Hyaluronic acids: Hydra-S B-Complex/Cellex-C®, 14 doses Filler Treatment/Fillerina®, Voluma®, XC/Juvéderm®, Restylane®
- Hydroquinone: Meladerm Skin Lightening/Civant®, Niacinamide/Aviance®
- Hydroxy acids/Glycolic acids: AHA/AHA Soufflé®
- Kojic Acid: Kojic Acid Skin Lightening Cream/Supplement Spot®
- Licorice + Niacinamide: Lytera® Skin Brightening Complex/SkinMedica®
- Licorice root + Glabridin: Glabridin A71/ETAT PUR®
- Niacinamide: Fair & Lovely®
- Peptide Argireline + Aloe: Face Whisperer®/Sublime Beauty®, Instantly Ageless™/Jeunesse®
- Peptides (+/-) Urea: Anti-Aging Rapid Response/La Prairie®, ybf:Control/Your Best Face™, Ureadin Fusion®/ISDIN®
- Resveratrol: Pure Super Grape/M&S®
- Retinol: Glow/Dr. Brandt®, ZO Skin Health®, Age Smart/Dermaloga®
- Retinol 1%: Retinol Complex 1.0/SkinMedica®, Retinol 1.0/SkinCeuticals®
- Retinyl Palmitate: Boots No. 7/Boots®
- Retinyl Propionate + Niacinamide: Pro-X/Olay®
- Soy: Fresh®, Soy Face/Sephora®
- Stem Cells: Intense Stem Cell Skincare/Dr. LEVY®, Radiance Lift/EVE LOM®, Eye Wonder™/Oskia®
- Sunscreens: Blue Lizard®, CeraVe®, Badger Balm®, Neutrogena®
- Tretinoin: Tretinol/glō therapeutics®
- Tretinoin/Vitamin A: Tretinol/glō therapeutics®
- Triple Therapy: Tri-Luma®
- Vitamin A/Tretinoin/Isotretinoin: Accutane®, Avage®, Renova®/Obagi®
- Vitamin C: Radiance Day Nite creams/Burt’s Bees®
- Vitamin C/E (+/-) Ferulic acid creams and serums: Complexion Brightening Cream/Suki®, CE Ferulic/SkinCeuticals®
- Vitamin E: Argania™

B - Skin Texture And Elasticity

Oral:
- ChokeBerry Juice: Superberries™

Topical:
- Caffeine: Firm and Tone Serum/Murad®
- Caffeine + Tetrahydroxypropyl Ethylenediamine (THPE) + Retinol: Anti-Cellulite Intensive Cream/ROC J&J®
- Red Algae + Retinol + Glucamine: Perfect Body Contour Creator/Oriflame®, Body Contour/Boots®, Cellulaze®
- Centella: Hydra Zen Neurocalm™/Lancôme®
- Hydroxyprolisilane-C: Lineless Cream/Dr. Brandt®
- Rosehip Oil + Vitamin E: Aura Cacia®

C - Skin Inflammation And Sensitivity

Oral:
- Antihistamines: Benadryl®
- Doxycycline: Oracea®
- Probiotics: Lactinex®
- Tetracycline: Sumycin®

Topical:
- Adapalene: Differin®
- Aloe: Aloe Vera®
- Azelaic acid: Finacea®
- Betamethasone valerate: Luxiq®
- Brimonidine tartrate: Mirvaso®
- Caffeine + Zinc + Bisabolol: SkinCeuticals®
**C - Skin Inflammation And Sensitivity**

- Calcipotriene: Calcitrene®, Dovonex®
- Clindamycin: Cleocin®
- Colloidal oatmeal: Avena®
- Corticosteroids: Clobetasol/Temovate®, Clobex®
- Desoximetasone: Topicort®
- EGF + Aloe: Dermaced Redux®
- Erythromycin: Erygel®
- Fluocinolone: Capex®, Synalar®
- Glycerin: Enkido®
- Green Tea Cream: Green Tea Skin/Life-Flo®
- Hyaluronic acid: Bionect®
- Low potency corticosteroids: Hytone®, Texacort®, Cortaid®, Cortizone 10®
- Medium/High potency corticosteroids: Trianex®, Temovate®
- Metronidazole: Metrogel®
- Moisturizers/emollients: Noxzema®, Ponds®, CeraVe PM®, Cetaphil®, Neutrogena®, Lubriderm®
- Petroleum jelly: Vaseline®
- Retinoids: Avage®, Fabior®
- Sodium sulfacetamide: Klaron®
- Tacrolimus: Protopic®
- Pimecrolimus: Elidel®
- Tazarotene: Tazarac®
- Thick creams: Ponds®, Noxzema®, Lubriderm®
- Tretinoin: Retin-A®
- Triamcinolone: Trianex®
- Urea: Gordons Urea®
- Vitamin C/E creams: triple oxygen/bliss®
- Adalimumab: Humira®
- Etanercept: Enbrel®
- Infliximab: Remicade®
- Ustekinumab: Stelara®

**D - Skin Moisture Factor**

**Oral:**

- Collagen Peptides: PeptanF®/Rousselot®

**Topical:**

- AHA (+/-) Ceramides or Urea: AquaPorin Hydrating Cream/
  Circadia®, Amlactin®, Ultramidé 25/Baker Cummins®, Burt's Bees®
- Allantoin: Flawless Skin/Laura Mercier®
- Ceramide: Skin Inc/Sephora®, CeraVe®
- Eucerin: Eucerin Plus Cream/Beiersdorf®
- Glycerol formulations: AQUAporin Cream/Eucerin®, TonyMoly®
- Moisturizing creams: Noxzema®, Ponds®, CeraVe PM®,
  Cetaphil®, Neutrogena®, Lubriderm®
- Petroleum jelly: Vaseline 100®
- Urea: Carmol®
- Vitamin A: Retin-A®, Tazorac®

**E - Skin Oxidation Protection**

**Oral:**

- Nicinamide: NOW Foods®

**Topical:**

- Ascorbic acid/Vitamin C: Isabis™ Formulae, SkinCeuticals®
- Apple stem cells + Urea + Peptides: Ureadin Fusion®/ISDIN®
- Astaxanthin: Madre Labs®
- Kinetin: Gentle Rejuv/Obagi®
- Resveratrol + Vitamin E + Baicalin: Resveratrol B E/
  SkinCeuticals®
- Vitamin C + E: C E Ferulic/SkinCeuticals®

**F - Skin Glycation**

**Oral:**

- Nicinamide: NOW Foods®

**Topical:**

- Carnosine: Lineless/Dr. Brandt®, Bio Lifting/Chantecaille®
- Nicinamide: InstaNatural®, Olay®, Metacell Renewal B3/
  SkinCeuticals®
- Silibinin + Alpha-Lipoic acid: Revitalizing Night Crème/Aubrey
  Organics®
- Truffles/Mushrooms: ReNutriv/Estee Lauder®, Truffle Therapy™
  Serum/Skin&Co Roma®

**G - Skin Nutritional Needs**

**Topical:**

- Omega-3, Omega-6:
- Omega 3+6: Global Beauty®, Olay®