

# ASEA® | SCIENCE UPDATE

ASEA is changing the way people look at cellular health, and a major factor in that is ongoing research. The latest exciting announcements surrounding the science behind ASEA's groundbreaking products include new findings and expert endorsements.

## ASEA Commissions Prestigious Research Firms to Conduct Studies on RENU 28

Because ASEA takes science seriously, continuous research is paramount. Our ongoing commitment is to prove the safety and efficacy of our products, certify them where possible, and further the research that proves the potential and benefits of redox signaling supplementation, both internally and externally.

We commissioned Stephens & Associates to study the effects of redox signaling on blood flow and cell turnover, with specific emphasis on the skin.

We charged Stephens & Associates to answer two important questions in their research:

1. Will RENU 28 stimulate skin cell renewal and turnover?
2. Will RENU 28 increase blood flow in the skin?

### SKIN CELL RENEWAL AND CELL TURNOVER STUDY

Skin cell renewal, and the rate at which cells renew, is the essence of antiaging. Because redox signaling molecules work at a cellular level, with messages that signal cell turnover, ASEA commissioned a study that shows the way RENU 28 can affect the rate of skin cell renewal.

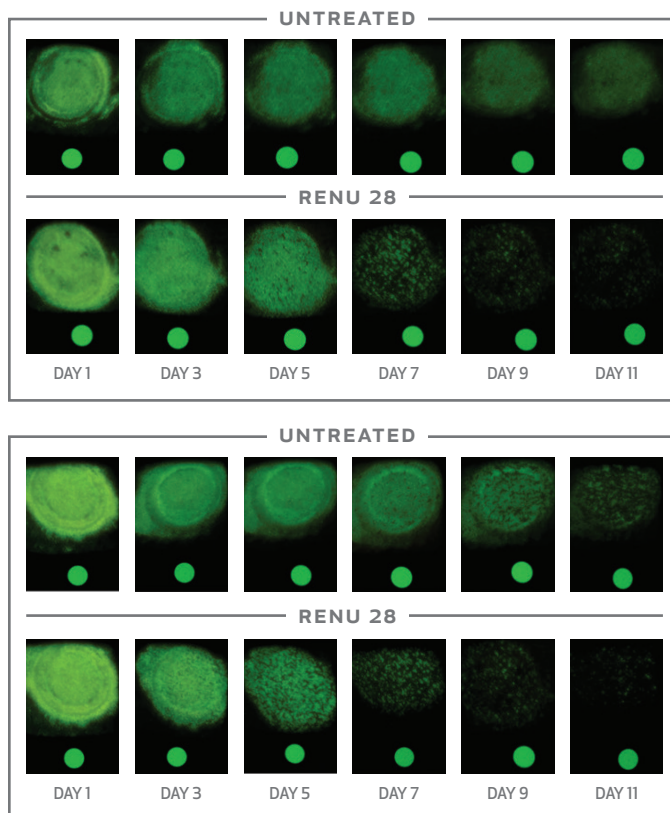
#### Study Protocol

For this study, participants applied RENU 28 to one forearm twice each morning and twice each evening for two weeks. At that point, a fluorescent dye was applied to the RENU 28 forearm and to the control forearm. Each arm was then photographed under UV light and quantified. Over the next two weeks, participants continued to apply RENU 28 as before. The fading of the dye indicated skin cell renewal and turnover. The findings are compelling.

#### Results Summary

After 30 Days, the following results were measured on participants' forearms:

- RENU 28 arm dye faded to zero in 13.2 days
- Control arm dye faded to zero in 15.3 days



RENU 28 showed 16% faster skin cell renewal rate according to the fading of the dye. Typical cell turnover is 28–42 days. Applying the 16% faster cell turnover rate shown in the study, typical turnover time with RENU 28 is estimated at 24–36 days, shaving four to six days off of normal cell renewal time. These are the results after only 30 days of RENU 28 use. Imagine the cell turnover with prolonged use and the possibilities for true skin antiaging from the cellular level.

### INCREASED BLOOD FLOW STUDY

As the largest organ in the body in terms of both surface area and weight, the skin protects the body from the elements, regulates body temperature and fluid balance, and is an organ of sensation. All of these functions require proper blood flow. As blood flow decreases with age, a number of conditions can arise.

The benefits of blood flow and can be seen in the following ways:

- Healthy and radiant skin
- Even complexion
- Relief from dry skin
- Stretch mark reduction
- Decreased appearance of cellulite
- Reduction in appearance of spider veins
- Better circulation in hands and feet
- Reduced swelling and water retention

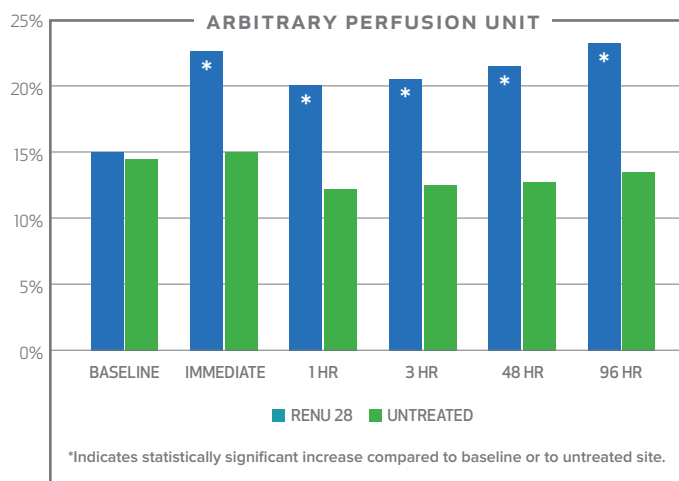
### Study Protocol

For this study, participants applied RENU 28 to one forearm twice each morning and twice each evening. Microcirculation in the skin on each arm was measured with a laser Doppler immediately after RENU 28 application, then again at one hour and three hours. Then, continuing the same morning/night applications, microcirculation was measured at 48 hours and again at 96 hours. The test was performed prior to RENU 28 application each morning so that results for that day would not reflect the latest application.

### Results Summary

The following results were measured on participants' forearms, comparing the arm where RENU 28 was applied to the control arm:

- 49% blood flow increase within 15 minutes of first application
- 34% blood flow increase one hour post initial application
- 35% blood flow increase three hours post initial application
- 44% blood flow increase 48 hours into the study
- 55% blood flow increase 96 hours into the study



## Dermatest Clinical Trials Focus on Effects of RENU 28 Applications on Face and Cellulite

ASEA has partnered twice with Dermatest to conduct trials on RENU 28.

### RENU 28 FACIAL TRIAL

RENU 28 is active redox signaling molecules that can be applied directly onto the skin to improve and revitalize it at the cellular level. ASEA commissioned a clinical trial to quantify the results of this revitalization.

### Study Protocol

Twenty women used RENU 28 twice daily on their faces for 28 days.

### Results Summary

The following results were measured on participants' faces where RENU 28 was applied:

- 21% decrease in eye wrinkle depth
- 23% improvement in overall wrinkles
- 22% improvement in facial skin texture
- 23% increase in skin smoothness
- 20% increase in skin elasticity
- 11% increase in skin moisture

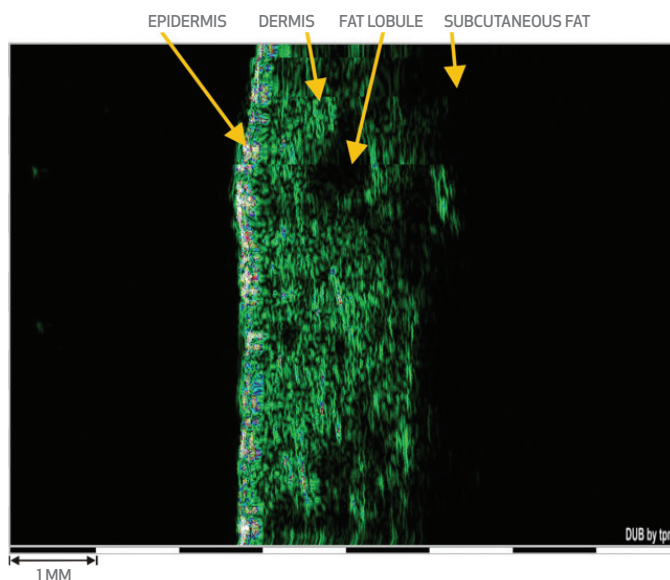
RENU 28 earned Dermatest's coveted 5-star clinically tested seal for safety, its highest possible commendation.

### RENU 28 CELLULITE TRIAL

Cellulite forms when fat lobules press against the skin and create a bulge with an accompanying depression next to the bulge. Dermatest is currently conducting a 12-week study on the effects of RENU 28 on cellulite.

### Study Protocol

Over a 12-week trial period, 30 female participants applied RENU 28 to a cellulite area, using enough product to require 30 – 60 seconds to massage into the skin morning and night. On day one, skin elasticity was measured with a cutometer; fat lobule size measurements were taken with ultrasound images. See image below.

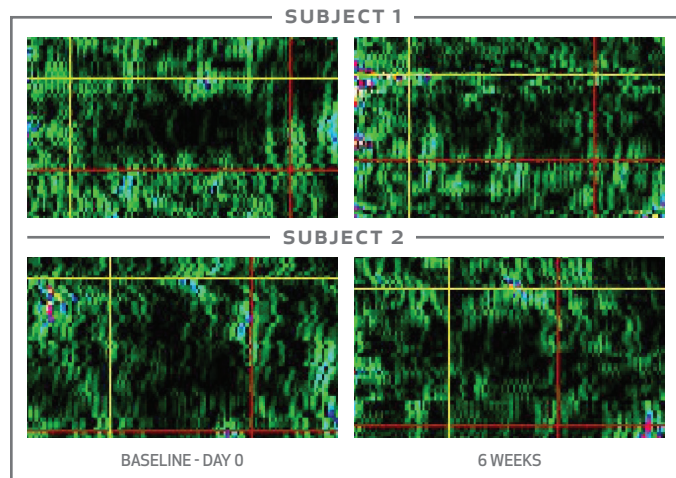


### Results Summary to Date

This study is only at its halfway point, but the preliminary findings, after only six weeks, are compelling:

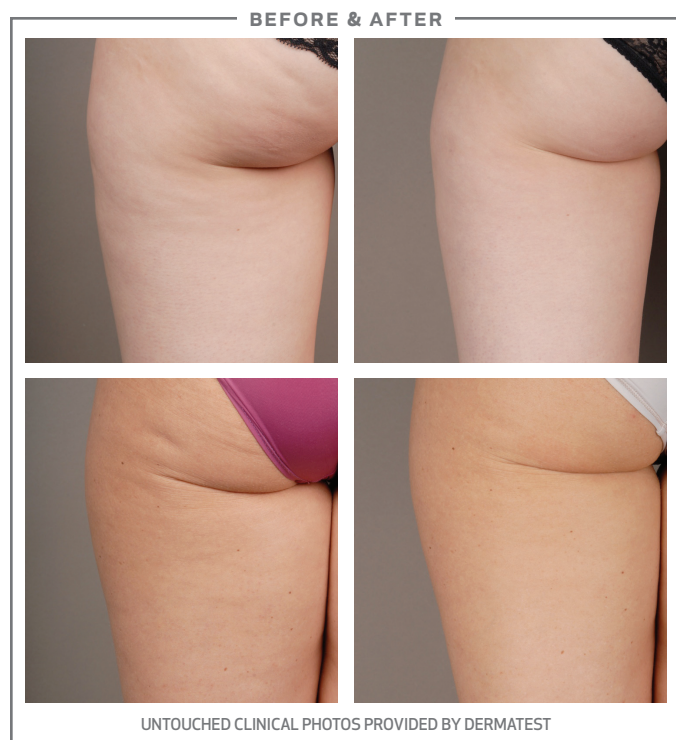
- 16.5% increase in elasticity
- 12% decrease in fat (adipose) lobule length
- 10.5% decrease in fat (adipose) lobule width

These results show not only an increase in elasticity, but an actual decrease in the fat itself, and it's done naturally. RENU 28 works with the body's natural cellular communication to reduce fat deposits, whereas other treatments for cellulite employ inflammation and the use of fillers for a temporary effect. RENU 28 is being proven to reduce both the appearance and presence of fat deposits.



This image shows two different subjects. The dark area represents an actual fat lobule, and the vertical and horizontal lines are used for measurement. It's clear in the column on the left that the fat lobule in each subject measures significantly larger than in the column on the right, after using RENU 28 for six weeks.

ASEA will publish the official results of the cellulite study after the study period is complete and data are compiled, likely by the fall of 2015.



## ASEA Receives Facility and Product Certifications

ASEA has invested millions of dollars in a production facility that enables us to control the creation process from raw materials to delivery. We have recently completed third-party reviews and received prestigious certifications on both our production facility and on ASEA's products.

ASEA's production plant follows Good Manufacturing Practices (GMP), is FDA registered, NSF GMP certified, Kosher certified, and undergoes regular audits and inspections.

### NSF CERTIFICATION

NSF International, a global public health and safety organization that provides food safety and quality assurance services across all food supply chain sectors, has certified ASEA's production facility as a GMP compliant facility, confirming it is fully compliant with specific standards for safety, quality, and performance.

Auditors assess the following areas in a three-stage process:

- Personnel
- Physical plant and grounds
- Equipment and utensils
- Production and process controls
- Holding and distribution
- Return of product
- Product complaints
- Records and record keeping
- Recall procedures

ASEA has spent three years dedicated to securing this certification so consumers can be confident that its products are safe and meet all quality standards the FDA has established for the production and testing of nutritional supplements.

### BIOAGILYTIX

BioAgilytix Labs, a leading bioanalytical testing laboratory specializing in biomarker testing, has validated the existence of redox signaling molecules in ASEA Redox Supplement and RENU 28. BioAgilytix works in unison with our internal quality team to give scientific validity to ASEA products and to ensure that every product made is of the highest quality.

To maintain its BioAgilytix certification, ASEA provides regular product samples for scientific assay to substantiate the existence of redox signaling molecules. BioAgilytix is a partner of eight of the top 10 global pharma and biotech companies. Half of its employees hold Ph. D. and masters degrees and average 15 years' post-graduation experience.

Because of the ongoing substantiation of redox signaling molecules, BioAgilytix authorizes ASEA to display their redox certified seal on the packaging of both ASEA Redox Supplement and RENU 28 as well as on all marketing labels.



ASEA's certification is listed on BioAgilytix's website: <http://www.bioagilytix.com/biomarkers/detail?id=1283>

## ASEA Creates New Science Panels for Both External and Internal Audiences

As the science and legitimacy of redox signaling technology grows, so does public interest. This drives the need for reliable endorsements from credible medical practitioners, and fortunately, it also brings a natural increase in outside independent experts showing more interest in ASEA and redox signaling. To support the need to validate the science of redox signaling for both external and internal audiences, ASEA has formed panels made up of experts.

### ASEA SCIENCE COUNCIL

ASEA has assembled a science council made up of third-party experts in the science and research of redox signaling. They consult with ASEA corporate on research direction, serve as experts for media opportunities, and speak at corporate events on science and research trends and updates. The panel includes the following with plans to expand it in the near future:

Brooke Alpert, M.S., R.D., C.D.N.

Nationally recognized nutrition expert and author

Dr. Giuseppe Maffi

Independent science consultant for nutraceutical and pharmaceutical multinational companies

Gary Samuelson, Ph. D

Atomic/medical physicist and researcher

Karen R. Stolman, M.D.

Adjunct professor in the Department of Dermatology at the University of Utah

Read full bios on the ASEA Science Council at <http://aseaglobal.com/en-us/science/aseasciencecouncil.aspx>.

## ASEA MEDICAL PROFESSIONALS BOARD

A growing number of medical professionals are becoming ASEA Associates, and ASEA has hand-picked a select few to serve as members of the Medical Professionals Board. These specialists are internal experts on science and research of redox and will present science and research topics at corporate meetings, provide expertise on research and product issues, and appear on corporate websites as advocates of ASEA products and experts in their respective fields.

Shawn Burke, P.T.A.

Stan Gardner, M.D.

Maureen Hayes, M.D.

Foster R. Malmel, D.C., P.C.

David Silverman, M.D.

Karl V. Smith, M.D.

Read full bios on the ASEA Medical Professionals Board at <http://aseaglobal.com/en-us/science/medicalprofessionalsboard.aspx>.