

CLINICAL STUDY REPORT

# Neofollics Stimulating Beard Growth Serum Key Study Findings



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# 1. Introduction

The Neofollics Beard Growth Stimulating Serum is the most advanced beard growth Serum on the market. It offers an effective treatment and multiple pathway approach to improve the hair growth of beard and moustache.

The serum contains 7% Neoxyl® (Neofollics' proprietary complex of hair growth stimulating ingredients) and essential hair growth supporting oils. There's a superior user friendliness and the serum is transparent and easy to apply. The bottle comes with a serum pump and contains 45 ml, which is good for a 1-2 month supply (depending on dosage).



## 2. Who is it for?

Neofollics Beard Growth Stimulating Serum is developed for a fuller and thicker beard and moustache. It is formulated with effective, clinically proven combination of active ingredients.

**THE NEOFOLLIC BEARD GROWTH STIMULATING SERUM IS PERFECT FOR ANY PERSON WHO WANTS:**

- ✔ To stimulate growth of facial hair for a thicker and fuller beard
- ✔ A side-effect free hair growth stimulating beard product
- ✔ To nourish and maintain healthy facial hair and skin
- ✔ A premium beard serum with real hair growth stimulating properties as replacement of a beard oil

## 3. What makes it effective and unique?

### ✔ CONTAINS 7% NEOXYL®

A very high concentration of Neoxyl which is a proprietary complex of:

- Hair growth molecules
- Peptides
- Powerful plant extracts

### ✔ SAFE AND MILD SERUM

Nourishes the skin with Sandalwood, Castor and Rosemary oil. Agave gel moisturises the facial skin. No harsh ingredients are used.

### ✔ ULTRA QUICK ABSORPTION

Transparent serum that absorbs in seconds, leaves no residue and does not make the hair greasy.

### ✔ EFFICACY BOOSTER™

Absorption is increased by using Liposome technology and Hyaluronic acid to bring the active ingredients to where they are most effective, the hair follicle.

### ✔ MULTILATERAL APPROACH TO HAIR GROWTH

The Neofollics Beard Growth Stimulating Serum has 6 different mechanisms to gain control over hair growth and improve the growth and thickness of the hair.

### ✔ CLINICALLY PROVEN

Thoroughly tested for effectiveness:

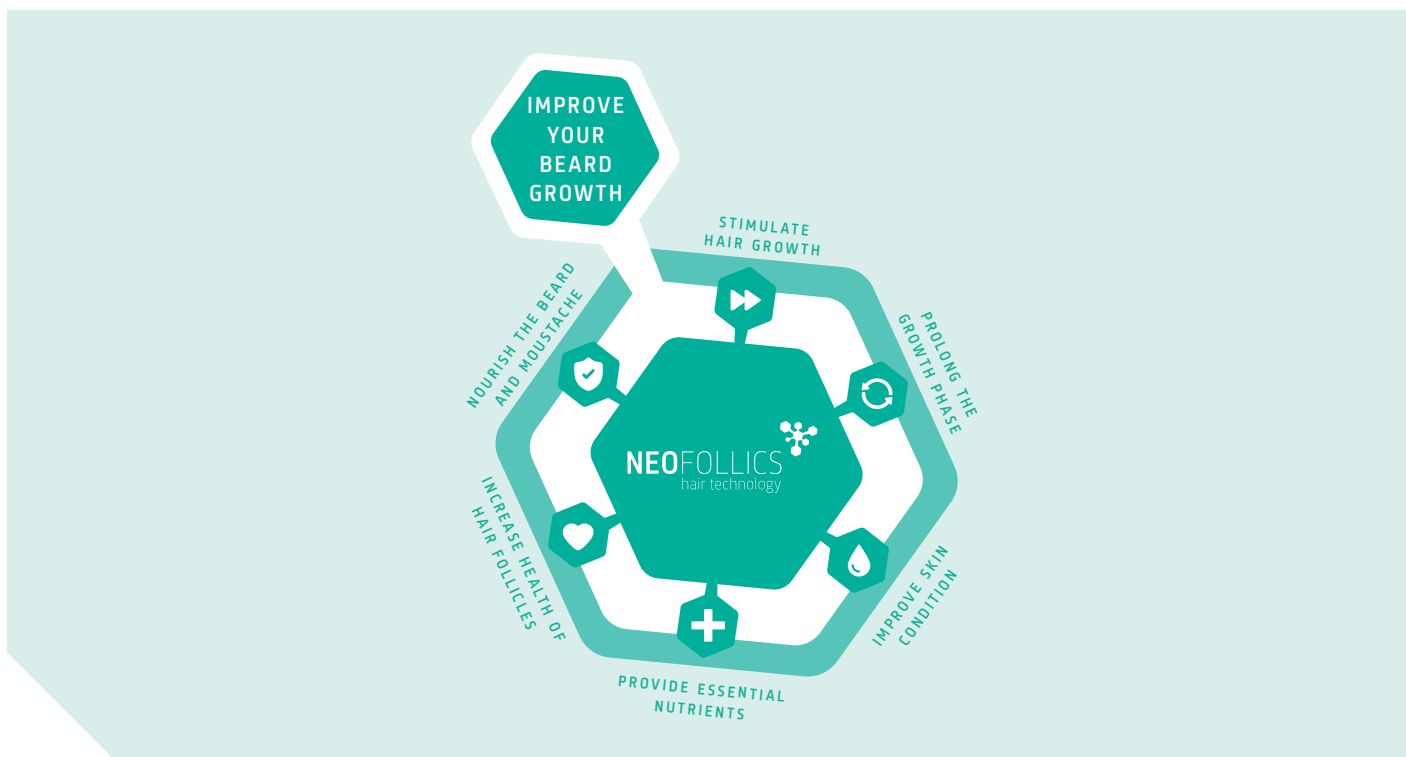
- 81% success rate
- 96% user satisfaction
- Superior to Minoxidil

## 4. Working mechanisms

Beard growth is a complex biochemical process which differs from combatting hair loss on the scalp.

The Neofollics Beard Growth Stimulating Serum works in 6 different ways to improve the growth and appearance of the facial hair:

- ✔ Stimulate hair growth
- ✔ Prolong the hair growth phase
- ✔ Improve skin condition
- ✔ Provides essential nutrients
- ✔ Increase health of hair follicles
- ✔ Nourish the beard and moustache



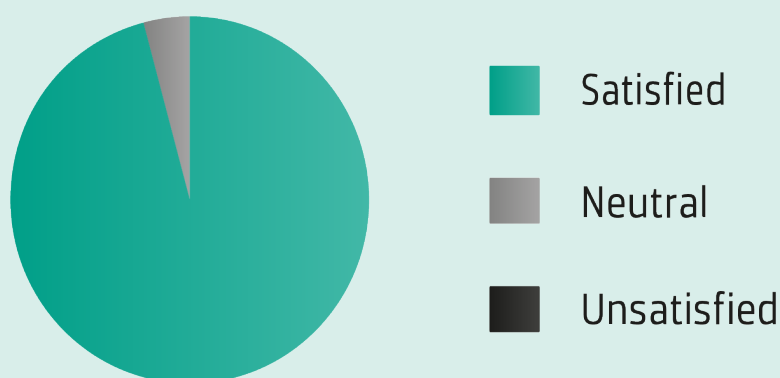


## 5. Usage

### SIDE EFFECTS FREE & USER FRIENDLY

All hair growth treatments require persistence and consequent usage to reach the maximum results. The Neofollics Beard Growth Stimulating Serum is formulated to have an optimal user friendliness without any side effects. This enables users to continue the treatment and reach their desired goals.

Neofollics Beard Growth Stimulating Serum is easy to apply, transparent, leaves no residue, has a masculine natural scent and is not greasy. This leads to easier application and improved therapy adherence.



The serum was tested for user satisfaction rate. First of all, no side effects were reported among the users and nobody ceased the treatment during the 90 day trial period due to adverse dermatological reactions and/or side effects. 96% of the users indicated to be satisfied with the overall usage beard serum.



## 6. Overview of individual ingredients

Contains Neoxyl 7% for Beard Growth, a proprietary complex of hair growth molecules, peptides and herbal extracts:

1. Pyrrolidiny diaminopyrimidine oxide (Vividine)
2. Adenosine
3. Copper tri-peptide complex (GHK-Cu)
4. Ecklonia Cava Extract
5. Camellia sinensis leaf extract (EGCG)
6. Sanguisorba officinalis root extract
7. Raspberry Ketone
8. Carthamus Tinctorius extract

Further enriched with essential beard oils and additional hair growth peptides

1. Castor oil
2. Sandalwood oil
3. Myristoyl Pentapeptide -17
4. Rosemary oil

And including Efficacy Booster, a combination of ingredients to increase absorption of active ingredients and transport to the hair follicle: liposomes and hyaluronic acid.

## ACTIVE INGREDIENT COMPLEXES

Neoxyl® is a powerful hair growth complex, developed by Neofollics Hair Technology. Neofollics Hair Technology helps people with hair problems by developing effective solutions. Numerous ingredients and formulations are researched with the aim to develop the most effective multilateral approach to hair loss.

With Neoxyl®, the ideal hair growth stimulating complex is now on the market. It contains a perfectly balanced combination of highly effective ingredients. The Neofollics Beard Serum contains a high concentration of Neoxyl®.

To obtain maximum results, the Neofollics Beard Serum includes Efficacy Booster™. A combination of Liposome technology and Hyaluronic Acid to rapidly and efficiently transport the active ingredients to where they can do their work: the hair follicle.

With this Beard Serum, Neofollics created a new generation, highly effective beard growth stimulant.

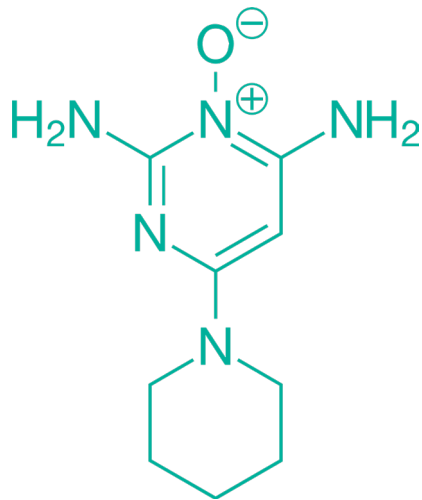




## 7. Key ingredients and their functions

Tekstje?

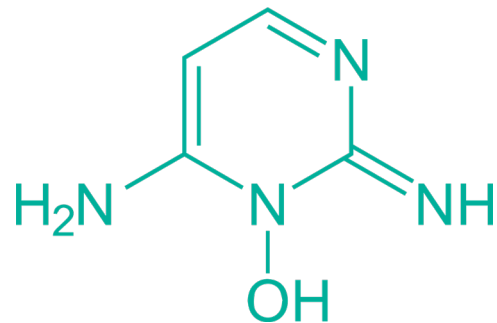
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### 1. VIVIDINE

Stimulates hair growth in multiple ways. Vividine allows for potassium channel opening (PCO), just like Minoxidil. This causes the hair to enter the growth phase quicker and for the growth phase to last longer. Vividine also stimulates the blood supply to the hair follicles, allowing nutrients to reach the follicles more easily.

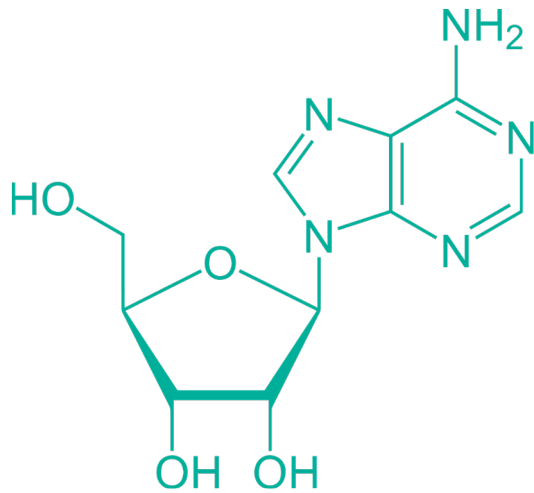
Clinical study results as single ingredient indicate a 13,5% increase on the improvement of mRNA expression for Vividine as compared with Minoxidil 5% which gives a 6,4% increase.



### 2. AMINEXIL

The main function of Aminexil is to prevent hardening of collagen around the hair root, making the hair roots anchor themselves more firmly into the scalp, thus reducing hair loss.

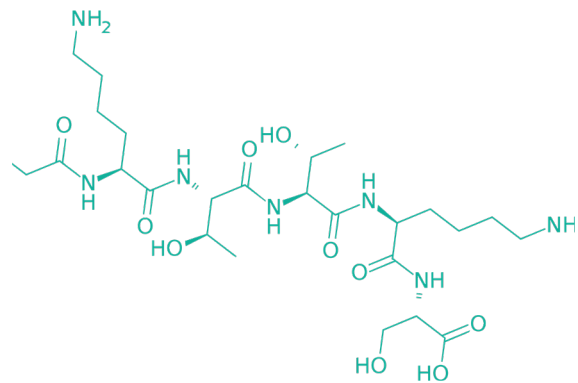
A clinical study result on the single ingredient indicated an improvement on hair loss at 58% of men and 47% of women after 12 weeks. The telogen rate of hairs decreased with 7,7% and the anagen count improved by 8,1%.



### 3. ADENOSINE

Studies show that applying a solution of Adenosine on the scalp can allow for improved hair growth in both men and women. Compared to Minoxidil, users are more satisfied using Adenosine in the prevention of hair loss. And unlike Minoxidil, Adenosine does not have any significant side effects.

Studies on Adenosine indicate a significant increase of hair growth among terminal hairs and an overall improvement of the hair status among both men and women



### 4. MYSTRIOYL PENTAPEPTIDE -17

This is a peptide (Lys-Leu-Ala-Lys-Lys) attached to an oil-soluble fatty acid, myristic acid for better bioavailability. It is known to significantly stimulate keratin genes. In other words, it can stimulate cells to produce more keratin, an important structural protein in hair.



### 5. ECKLONIA CAVA

Is a seaweed from the waters of South Korea. Ecklonia cava is a natural alternative to finasteride and minoxidil. It contains a high concentration of the substance Dieckol, which has a DHT lowering effect and a high concentration of Dioxinodehydroeckol, which stimulates hair growth.



### 6. EGCG (EPIGALLOCATECHIN GALLATE)

A polyphenol from Green Tea. EGCG inhibits the process of 5 $\alpha$ -reductase. This makes it a natural DHT inhibitor that stimulates hair growth.



### 7. SANGUISORBA OFFICINALIS

A plant that belongs to the rose family. *Sanguisorba officinalis* stimulates hair growth by prolonging the growth phase of the hair follicles.

It suppresses Fibroblast Growth Factor-5 (FGF-5), a natural protein that plays a role in the (too rapid) transition of the hair from the telogen to the anagen phase.



### 8. RASPBERRY KETONE

An extract from raspberry. Raspberry ketone increases the production of IGF-1 (an insulin-like growth factor), which stimulates the growth of the hair follicle. Studies show that a very low concentration of this substance already has a significant effect on hair growth.





### 9. CARTHAMUS TINCTORIUS

A thistle-like plant. *Carthamus tinctorius* stimulates hair growth in different ways and suppresses growth factor B-1, a peptide which is associated with hair loss.



### 10. SANDALWOOD OIL

Sandalwood oil, like minoxidil is proven to promote hair growth, prolongs the anagen phase and delays the transition to the catagen phase in a C57BL/6 mouse model of alopecia.

#### EFFICACY BOOSTER™

The Neofollics Lotion contains efficacy booster to improve the penetration of the active ingredients in to the scalp.

**Hyaluronic acid** improves the condition of the skin and improves the absorption of the active ingredients into the scalp.

The **liposome technology** encapsulates the active ingredients and enables further penetration of the skin's upper surface. This enhances the absorption of the actives into the hair follicle significantly.



## 8. Study on end-product

Tekstje?

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## EVALUATION ON PROLIFERATION ON HUMAN HAIR FOLLICULAR DERMAL PAPILLA CELLS

The Neofollics Beard Serum has been evaluated by an external laboratory on hair growth promoting potential by determining its effect on proliferation of Human Hair Follicular Dermal Papilla Cells (HFDPs) in vitro.

In the present study, the in vitro hair growth promoting potential of Neofollics was investigated by determining its effect on proliferation of Human Hair Follicular Dermal Papilla Cells (HFDPs), which are the key cells in hair biology.

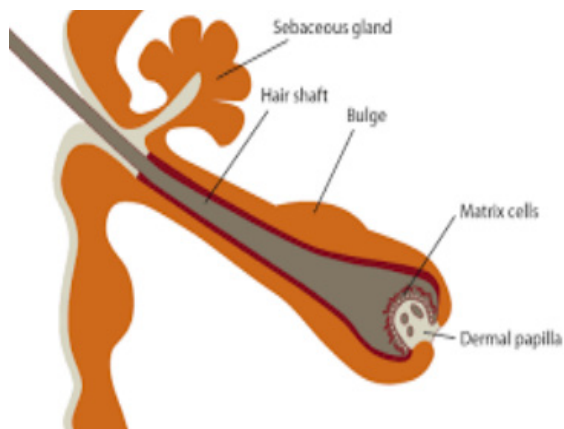


Figure 1.1. Location of dermal papilla cells in the hair follicle

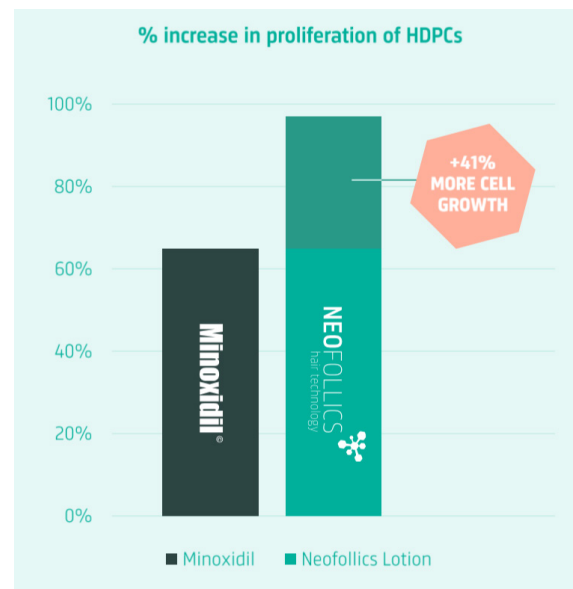
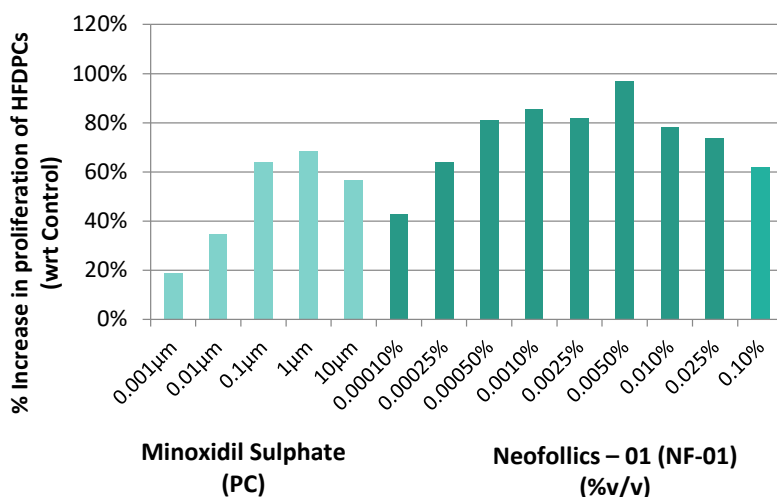


Figure 1.2. Comparison of main results Minoxidil vs. Neofollics Lotion on the proliferation of HFDPs. group (N=90)

### INCREASE IN THE PROLIFERATION OF HFDPCS

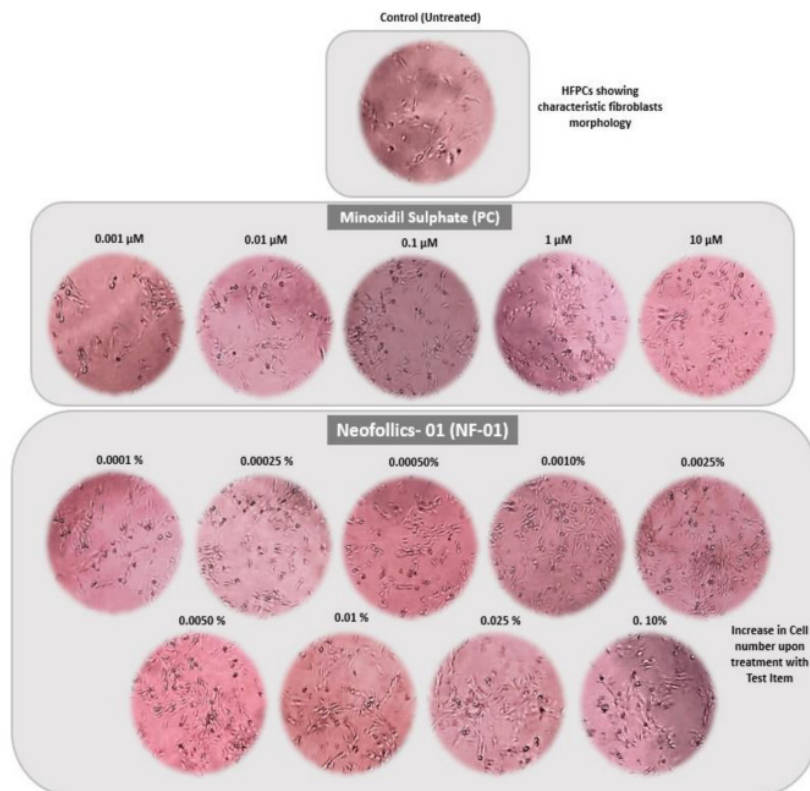
Hair follicular dermal papilla cells (HFDPCs) are widely reported as cell model to evaluate the hair-growth promoting effects of Test Items [1-6]. In the present study, hair growth promoting effect of Neofollics Lotion was evaluated in vitro using HFDPCs as reflected by the increase in cellular proliferation by BrdU assay.

To evaluate the effect on cell proliferation, HFDPCs were treated with Neofollics Lotion for 48 h in serum starved conditions. The resultant increase in the proliferation of HFDPCs was determined by 5-bromo-2'-deoxyuridine (BrdU) incorporation Assay, that measures the mitotic activity and increase in the number of cells. It was observed that Neofollics Lotion in the concentration range of 0.0001% - 0.1% v/v demonstrated remarkable increase (up to 96.8%) in the proliferation of HFDPCs.



Sample		% Proliferation of HFDPCs (wrt Control)
Control (Untreated)		0.0
Minoxidil Sulphate (PC)	0.001µm	18.7
	0.01µm	34.5
	0.1µm	64.0
	1µm	68.3
	10µm	56.6
Neofollics (NF-01) (% v/v)	0.00010%	42.6
	0.00025%	63.9
	0.00050%	80.9
	0.0010%	85.4
	0.0025%	82.0
	0.0050%	96.8
	0.010%	78.3
	0.025%	73.7
0.10%	62.2	

Figure 1.3. Effect of Neofollics Lotion on the proliferation of HFDPC's.



(Images captured at 40 X magnification)

Figure 1.4. Photomicrographs representing the effect of Neofollics-01 (NF-01) on the morphology of HFPCs after 48 h of treatment

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## The scientific approach to hair growth

The goal of Neofollics Hair Technology is to help people who are dealing with hair loss to gain control of their situation.

We do this by making the latest scientific insights available to every one, developing products that stimulate hair growth effectively.

[www.neofollics.com](http://www.neofollics.com)

