《突破！科学家终于发明了治疗秃头的办法》

There's a plethora of treatments for balding on the market. But what if you could regrow your own hair out of your own head by simply applying an ointment?

市面上治疗秃头的药物多得数不胜数。不过说不定你现在可以通过擦一种药膏就能够轻松地让自己的头顶自己长出头发哟。

In a paper that seems (almost) straight out of the plot of The Peanut Butter Solution, South Korean scientists describe a treatment for hair loss that doesn't just prevent hair loss - it promotes the growth of new follicles in hairless mice.

南韩科学家发表了一篇研究文章，称他们研发的药物不仅能预防脱发，还能让无毛鼠身上生长出新的毛囊。这听起来简直和法国老电影《魔法》的剧情如出一辙！

Led by professor Choi Kang-yeol of Yonsei University, a team of researchers discovered a protein responsible for hair loss in androgenetic alopecia, also known as pattern baldness - the most common type of hair loss in both men and women.

这支研究队伍由韩国延世大学的Choi Kang-yeol教授领队，他们发现了激素性脱发中起决定性作用的一种蛋白质——这种脱发也称为斑秃，是男女患者身上最为常见的脱发类型。

"We have found a protein that controls the hair growth and developed a new substance that promotes hair regeneration by controlling the function of the protein," Kang-yeol said.

Kang-yeol教授称，“我们发现了一种控制头发生长的蛋白质，并且研发出了一种物质，能够控制这种蛋白质的作用，从而促进毛发再生。”

"We expect that the newly developed substance will contribute to the development of a drug that not only treats hair loss but also regenerate damaged skin tissues."

“我们希望这种新研发的物质能够帮助人们研发出新的药物，通过这种药物人们不仅能治疗脱发，还能让受损的皮肤组织再生。”

The offender seems to be CXXC-type zinc finger protein 5 (CXXC5), which acts as a negative regulator on the Wnt/β-catenin pathway, which is linked to hair regeneration and wound healing.

他们发现的这种蛋白质是cxxc型锌指蛋白5，它会对Wnt/β环形蛋白起到抑制作用，而后者与头发再生和伤口愈合有密切关系。

When CXXC5 binds with a protein called the Dishevelled protein, it prevents follicle development and hair regrowth.

当cxxc型锌指蛋白5与散乱蛋白相结合，就会抑制毛囊生长和头发再生。

A new biomaterial developed by the team interferes with this binding process. It's called PTD-DBM, and when applied to the bare skin of bald mice for 28 days, new follicles developed.

这支研究团队研制出的一种新型生物制剂能阻止这一结合过程。它被称为PTD-DBM，研究者在秃毛鼠赤裸的皮肤上涂上这种制剂，28天后，新的毛囊生长出来了。

A 2013 paper found that, in humans, a treatment for androgenetic alopecia was significantly more effective when accompanied by microneedling - rolling very fine needles over the skin to puncture it.

2013年曾有论文指出，在人类身上激素类脱发的治疗与微针疗法相结合后能起到事半功倍的效果，即用非常微小的细针在皮肤上滚动针灸。

It may be some time before the treatment becomes readily available, however. A 2015 study showed promise for using stem cells to promote the growth of follicles, but still seems to be some way off.

不过，要等到这一疗法确实可行还需时日。一份2015年的研究肯定了用干细胞促进干细胞生长的可行性，但是时机尚未成熟。

New treatments often take time to develop, not least because they need to go through clinical trials to determine their safety - and, as we know, using mousemodels to study how well things might respond in humans doesn't always work.

新疗法往往需要时间才能完善起来，不仅因为他们需要通过临床试验的验证以检验其安全性，同时，正如我们所知道的，在小白鼠身上研究某种制剂在人类身上的反应，这种做法并不是屡试不爽。

Nevertheless, the team's research is progressing apace. They're currently testing their new substance on animals to determine whether it's toxic, before proceeding to human trials.

不过，这支研究队伍的研究成果正在大步迈进。目前他们正在动物身上试验他们的新制剂，想看看它是否具有毒性，最后他们会在人类身上进行试验。

（翻译：小木）