**Supplementary Figure S1. Making of PTG and SCS**

Patients complaining of excessive shedding with a 20-30 percent reduction of the global volume of scalp hair are shown in panels **a** and **b** of Figure S1 (respectively TOP left and right). Panel **a** shows a patient sitting in front of the standardized imaging tools and the in-house organization of our technical room. The standardized procedure will be followed like in any other patient except for the comb with wider spaces in case of curly African hair compared with tighter tooth combs for Caucasian hair1. Panel **b** shows the top of the head with parted hair midline. The white circle is where a contrast-enhanced phototrichogram with exogen collection (CE-PTG-EC) will probe detailed hair dynamics in the region of interest (ROI), as detailed in panels c to h. Panel **c** shows dyed hair captured immediately after short clipping. We perform exogen sampling before imaging to remove hair that has shed from the ROI. Panel **d** shows the same site with anagen and telogen hair (site cleared from exogen after a new hair dye session about 48 h later; in the present case 42.7 h; ROI surface 0.69 cm2). The technician made a methodological error deemed acceptable as it accounted for less than 3% of the total hair involved in human intervention. For transparency, we illustrate this error with three magenta bars next to an empty follicle (marked by a yellow dot), identifying two white and one pigmented terminal hair. These were initially omitted, but one pigmented growing shaft can be easily traced in the enlarged views of panels **e** and **f**. Panel **e** displays a mapping of stubbles by the technician, with the hair visible in the background (as in panel c) overlaid in red. Panel **f** shows growth in the same fibers; the hair from panel d is shown as background in panel **f**, complemented by red stubbles from panel **e** and additional color highlighting the extent of elongation, i.e., growth. In this routine procedure, technicians do not apply a specific color code (for further details on this procedure, refer to figures in previously published papers 2-4).

Scalp and hair in the background were cleared in panel **g** for Computer Assisted Image Analysis (CAIA).

Finally, deleting unnecessary stubbles, panel **h** displays ‘growth only’ where the computation of growth rate and diameter by unit time and unit area will generate productivity. Herein, we do not display the tracking of production per follicular unit (Fig. 11 in a previous paper 1). The area covered by hair in panel **h** per unit time and cm2 is used to express the productivity, i.e., the time to complete scalp coverage in this field or TTCC (days).

In Figure S1 patient shown in panel **b**) we report hair counts per cm2: 8 exogen hair, Nanohair: 41, Miniaturised: 42 (27%), Terminal: 116 (73%), and Total: 158 (100%) of whom 83% were growing. There was a lower anagen % in Miniaturised than in Terminal hair (48% and 95%). This illustrates very short cycling, i.e., less than 3 months at slow growth rates in Miniaturising follicles. Scalp Coverage Scoring (SCS from P1 to P4: 4.5, 3.5, 3, 3.5) translates as 72% SCS Max when TTCC was 51.24 days, i.e., 2.6 times longer than the average in healthy female controls (21 days).

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