

Mr. Lawson Tait refers to a tumour in which "over 300 teeth were found, resembling in many respects milk-teeth;" and to another tumour, "full of hair which had grown and "been shed from one little spot of skin not bigger than the tip "of my little finger. The amount of hair in the sac, had it "grown from a similarly sized area of the scalp, would have "taken almost a lifetime to grow and be shed."

Whether each of the innumerable autonomous elements of the body is a cell or the modified product of a cell, is a more doubtful question, even if so wide a definition be given to the term, as to include cell-like bodies without walls and without nuclei.<sup>40</sup> The doctrine of *omnis cellula e cellula* is admitted for plants, and widely prevails with respect to animals.<sup>41</sup> Thus Virchow, the great supporter of the cellular theory, whilst allowing that difficulties exist, maintains that every atom of tissue is derived from cells, and these from pre-existing cells, and these primarily from the egg, which he regards as a great cell. That cells, still retaining the same nature, increase by self-division or proliferation, is admitted by every one. But when an organism undergoes great changes of structure during development, the cells, which at each stage are supposed to be directly derived from previously existing cells, must likewise be greatly changed in nature; this change is attributed by the supporters of the cellular doctrine to some inherent power which the cells possess, and not to any external agency. Others maintain that cells and tissues of all kinds may be formed, independently of pre-existing cells, from plastic lymph or blastema. Whichever view may be correct, every one admits that the body consists of a multitude of organic units, all of which possess their own proper attributes, and are to a certain extent independent of all others. Hence it will be convenient to use indifferently the terms cells or organic units, or simply units.

*Variability and Inheritance.*—We have seen in the twenty-second chapter that variability is not a principle co-ordinate with life or reproduction, but results from special causes,

<sup>40</sup> For the most recent classification of cells, see Ernst Hæckel's 'Generelle Morpholog.,' Band ii., 1866, s. 275.

<sup>41</sup> Dr. W. Turner, 'The Present Aspect of Cellular Pathology,' 'Edinburgh Medical Journal,' April, 1863.