

# Chapter 10

## Conclusions

The mesectodermal origin of DPSC makes them a strong source of raw material for various human tissue regenerations in the future. Yamanaka's group generated iPSCs from DPSC of two putative HLA-homozygous donors who match ~20 % of the Japanese population at major HLA loci (Okita et al. 2011). The recognition of DPSC–iPSCs infers their availability to begin exploring their therapeutic potential at the pre-clinical level. However, using them in the area of tooth regeneration and making bio-teeth with all dental, and oro-musculatory and supportive tissue functions seems to be much more complicated. Currently, DPSC-based therapies are offering functional, vascularized, and innervated non-mineralized pulp tissue constructions (Huang et al. 2010; Kim et al. 2010a, b; Iohara et al. 2011; Yang et al. 2012). Furthermore, the stimulation of stem cell niches for odontoblast regeneration warrants further studies. With the help of current emergent concepts of complexity, we can explore the various functions of tooth tissues from a complex adaptive systems perspective.

## References

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