“Evolution: the gradual development of something”

As an industrial design student in 1999, I observed some of the difficulties for students learning to intubate. As time lapsed and oxygen levels dropped, I noticed tensions rising. The students’ grip of the instrument would start to tighten - and any finesse or fluidity of control was gone. But gradually the students would evolve their skills and one day master the classic instrument.

The Macintosh laryngoscope has been in common use since 1943, and for good reason. Its gently curved geometry engages the anatomy to facilitate a direct view of the vocal chords - while creating an optimal path for tube placement. Its simple construction is well suited to its environment, and so gradually it became broadly adopted.

After graduating in 2000, I founded Aircraft Medical to pursue a dream of developing the world’s best laryngoscope - one that would achieve higher success rates, especially where traditional tools were failing. Countless prototypes were built, tested and iterated upon over 7 years leading to the McGrath® Series 5 laryngoscope in 2006. We had spoken to more than 1,500 intubators and developed a highly refined instrument, albeit one mainly effective for difficult airways. To meet the original goal, the Series 5 laryngoscope would need to be refined to be less complex in its design, less expensive and offer users the enhancement of video while adopting a more familiar technique.

Ultimately, things better adapted to their environment tend to survive longer than those that are not. That’s evolution. The classic Macintosh laryngoscope was, in all but a few measures exceptionally well adapted. In many ways the first generation of video laryngoscopes were probably too focused on the shortcomings of the standard laryngoscope, and overlooked its many strengths. None possessed the simplicity, affordability and familiarity of the classic.

Over 10 years of studying laryngoscope design led to the McGrath® MAC laryngoscope. More than just adding visualisation, the McGrath® MAC also built on the global clinical experience of the Series 5 laryngoscope, which by then had been used in several million patients. Importantly, the McGrath® MAC laryngoscope was to be an enhancement of - rather than a reaction to - its predecessors.

I was not alone in developing the McGrath® laryngoscopes. A highly talented and dedicated team always surrounded me. We engaged with the airway community and have been supported by some of its leading minds. Together we shared a common purpose: to improve intubation success rates and to be fully engaged in the development of the best possible laryngoscopes.

From these humble beginnings, a design project sought to create a better laryngoscope and continue the evolution of airway management. Our purpose lives on and the future looks brighter than ever.