To: Editor, The Angle Orthodontist

Re: Response to: Functional genioplasty in growing patients by Chamberland S, Proffit WR, Chamberland PE. *Angle Orthod.* 2015; 85:360-373.

In our study, the recommendation for genioplasty was based on clinical evaluation of the prominence and vertical position of the soft tissue chin relative to the lips and the midface following Precious and Delaire's guidelines. In the sample we described in the paper, most patients had both AP chin deficiency and excessive mandibular anterior dental height, while a few had primarily a-p chin deficiency or vertical excess.

Relapse at Pg can be estimated by change of pogonion relative to a perpendicular to FH originating at Nasion. Multivariate analysis of covariance showed that in the 2 years following genioplasty or the controls refusal to accept it, change in chin position was not significant for any of the surgery groups and was not different from the controls. Stability in this study compares favourably to other reports and we saw no indication that the mode of fixation affected stability.

Postoperative remodeling is an important consideration in genioplasty procedures. There is bone deposition on the labial surface of the mandibule superior to the osteotomy and bone loss on the anterosuperior aspect of the inferior fragment. The surface of a fixation device situated in the region of bone loss will be externalized from bone and it may become a source of discomfort for the patient long term, so it is important to place fixation devices within an area of bone deposition, and wire fixation permits this. Using the larger and more costly bone plates or screws for fixation, unlike the situation with other types of orthognathic surgery, does not appear to have advantages for this type of genioplasty.

We can conclude that bone remodeling following genioplasty is better with early treatment and stability is good with wire fixation despite the greater remodeling.

Dr Sylvain Chamberland