



**Figure S3. Cranial endocast and braincase of *Falcarius utahensis* (holotype, UMNH VP 15000).**

In (A) and (B) in left lateral, (C) and (D) in caudal, (E) dorsal, and (F) ventral view. Bone in (B) and

(D) rendered transparent. Abbreviations: car, cerebral carotid artery canal; cvcm, caudal middle cerebral vein; fc, fenestra cochleae; fl, floccular lobe; fv, fenestra vestibuli; lab, endosseous labyrinth; pfo, pituitary (hypophyseal) fossa; V<sub>1</sub>, ophthalmic branch of the trigeminal nerve canal; V<sub>2</sub>, maxillary branch of the trigeminal nerve canal; V<sub>3</sub>, mandibular branch of the trigeminal nerve canal; VI, abducens nerve canal; VII, facial nerve canal; IX-XI, shared canal for the glossopharyngeal, vagus and spinal accessory nerve; XII, hypoglossal nerve canal. 3D content can be activated by clicking on figure S3 B.