

Supplementary Material

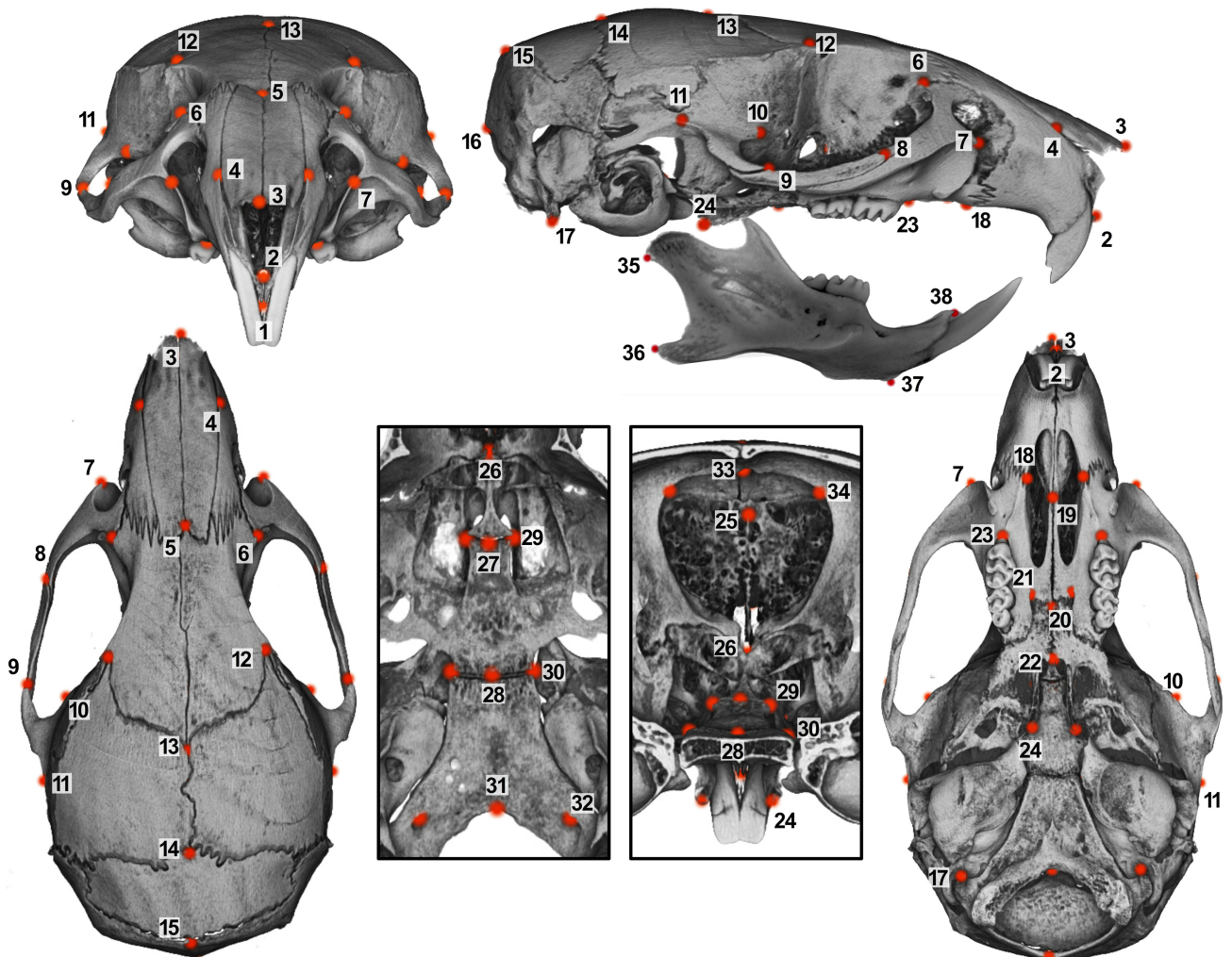
Postnatal ontogeny of the cranial base and craniofacial skeleton in male C57BL/6J mice: A reference standard for quantitative analysis

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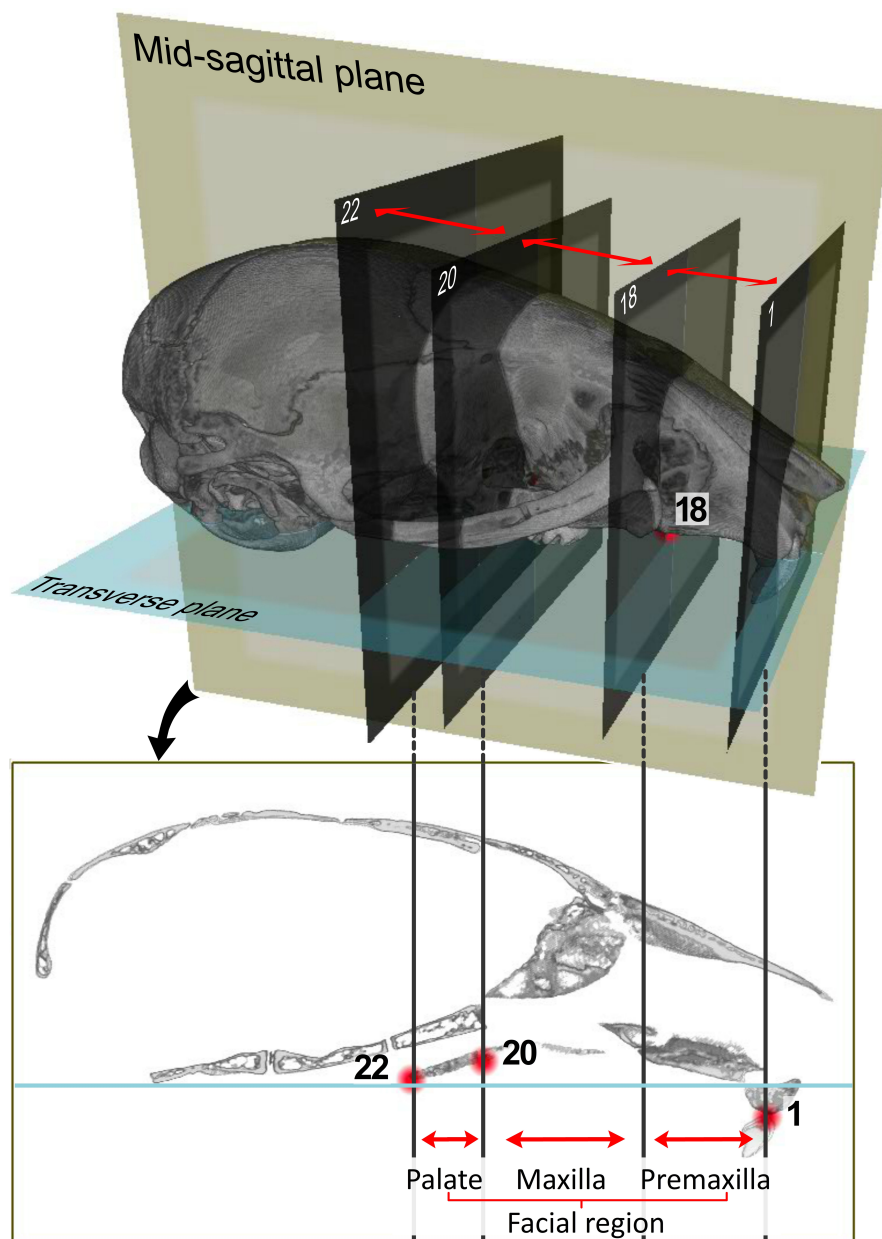
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Supplementary Figure 1. Landmarks used in this study (shown on a P56 skull).
Descriptions of landmarks are provided in Supplementary Table 1.



Supplementary Figure 2. Measurement of plane-projected distances for analysis of antero-posterior growth.

Micro-CT scan of a representative P28 animal with constructed mid-sagittal and transverse planes (**top**), with a slice view through the mid-sagittal plane (**bottom**). Landmarks #1, #18 (right), #20 and #22, which are used to measure the premaxillary, maxillary and palatal bones, are shown in red (see Supplementary Figure 1 and Supplementary Table 1). Parallel axial planes (perpendicular to the mid-sagittal and transverse planes) are constructed through these landmarks and the distance between them measures the A-P dimension of the individual bones. For bilaterally paired landmarks (e.g. #18 shown here), an average of the right and left measurement is for analysis.



Supplementary Table 1. List of landmarks used to derive craniofacial measurement.
 Mouse skull with annotated landmarks is shown in Supplementary Figure 1.

#	Description	Type
1	Midpoint mesial to maxillary incisors	Single
2	Anterior point at base of nasal aperture	Single
3	Nasale	Single
4	Anterior point on intersection of premaxillary and nasal bones	Paired
5	Nasion	Single
6	Intersection of maxilla, frontal and lacrimal bones	Paired
7	Anterior-superior point on zygomatic process of maxilla (lateral to infra orbital fissure)	Paired
8	Anterior end of zygomatic bone	Paired
9	Posterior end of zygomatic bone	Paired
10	Anterior point on base of zygomatic process of temporal bone	Paired
11	Posterior point on base of zygomatic process of temporal bone	Paired
12	Most prominent lateral point on frontal-parietal suture	Paired
13	Bregma	Single
14	Lamda	Single
15	Mid-sagittal point of intersection of interparietal and occipital bones	Single
16	Ophisthion	Single
17	Lateral point on mastoid process	Paired
18	Lateral premaxillary - maxillary suture	Paired
19	Medial premaxillary - maxillary junction	Single
20	Midline point on maxillary-palatal suture	Single
21	Anterior point on palatine foramen	Paired
22	Posterior point on palate	Single
23	Crest of alveolar process (mesial to 1st molar)	Paired
24	Posterior point on pterygoid process	Paired
25	Spine of ethmoidal crest	Single
26	Anterior point on midline of presphenoid (junction with ethmoid)	Single
27	Intesphenoidal synchondrosis (mid-point of endocranial rostral margin of basisphenoid)	Single
28	Spheno-occipital synchondrosis (mid-point of endocranial caudal margin of basisphenoid)	Single
29	Lateral point of endocranial rostral margin of basisphenoid	Paired
30	Lateral point of endocranial caudal margin of basisphenoid	Paired
31	Basion	Single
32	Anterior-medial point on hypoglossal canal	Paired
33	Mid-point on interior crest of frontal bone	Single
34	Superior-lateral point on interior crest of frontal bone	Paired
35	Posterior inferior point on mandibular condyle	Single
36	Posterior tip of the angular process	Single
37	Anterior inferior most point on the body of the mandible	Single
38	Midpoint on alveolar bone lingual to mandibular incisor	Single