{"num": "11101", "path": "11101.png", "answer": [Osteoclast], "explanation": "圍繞在硬骨組織的骨小針周遭，體型較大，頂部多核，細胞被染成比較紅的顏色。", "description": "圖中箭頭所指細胞名稱為何？"}

{"num": "11102", "path": "11102.png", "answer": [Large vein(vena cava);Tunica media], "explanation": "可分出tunica intima、tunica media、tunica adventitia三層。其中tunica intima非常薄，tunica media中可觀察到環走縱切（l.s.）的smooth muscle，tunica adventitia中則可觀察到一束束縱走橫切（c.s.）的smooth muscle，其間淡粉色帶狀分布者為collagen fiber。Large vein的tunica adventitia比tunica media厚很多。", "description": "圖中箭頭所指細胞名稱為何？"}

{"num": "11103", "path": "11103.png", "answer": [Nucleolus], "explanation": "細胞中大白圓為細胞核，核中高電賀密度的黑色部分為核仁", "description": "請問視野下是哪種構造？藍色箭頭所標示部分為何？"}

{"num": "11104", "path": "11104.png", "answer": [Ｂ], "explanation": "此為大腦切片，B處可見多個神經細胞核，其中有許多pyramidal cells，可知為灰質部分；A處為process聚集的白質。 ", "description": "請問AB何者為灰質？（A為左側、B為右側）"}

{"num": "11105", "path": "11105.png", "answer": [左：fibrocartilage；右：tendon], "explanation": "左:有lacuna，是chondrocyte，又排列整齊鏈狀，所以是fibrocartilage。 右:核長條型，fiber走向固定，為tendon。", "description": "左右分別是什麼？"}

{"num": "11106", "path": "11106.png", "answer": [Canaliculi], "explanation": "從osteocyte的lacunae延伸出來的輻射狀細線為canaliculi。", "description": "請問箭頭所指構造是什麼？"}

{"num": "11107", "path": "11107.png", "answer": [Basophil], "explanation": "深藍色顆粒，核不清楚。 ", "description": "請問下列為何種細胞？"}

{"num": "11108", "path": "11108.png", "answer": [A. smooth muscle；B. cardiac muscle], "explanation": "A.細胞排列較為緊密；B.細胞間空隙較大", "description": "下列圖片中A，B各為何種組織？"}

{"num": "11109", "path": "11109.png", "answer": [Tunica media], "explanation": "多層 smooth muscle（大多是環狀排列）和 elastic fiber。", "description": "以下紅線標示的結構是？"}

{"num": "11110", "path": "11110.png", "answer": [Alpha-granule], "explanation": "超大（300~500 nm），各種形狀皆有。電顯下略微 electron dense，因此呈現灰色。δ-granule 顏色極深，又稱dense body，為兩者差異。", "description": "下面黑色箭頭 (G) 所指構造為何？"}

{"num": "11111", "path": "11111.png", "answer": [Choroid plexus ; ependymal cell], "explanation": "脈絡叢（choroid plexus）為特化的 ependymal cell 中間包覆 vascular core 組成。（師曰：類似一串葡萄的形狀）", "description": "紅色圈選的組織為何？箭頭所指的細胞名稱？（be specific）"}

{"num": "11112", "path": "11112.png", "answer": [Smooth muscle; contraction], "explanation": "深紅色的深染帶狀為 contraction bands。收縮的平滑肌兩端的細胞質會往中心集中，故較深染。細胞核顏色也較深，且部分細胞核呈螺旋狀或可樂果狀（corkscrew）。", "description": "這是什麼組織？它現在在做什麼？"}

{"num": "11113", "path": "11113.png", "answer": [Basal body], "explanation": "1，2，3，4 皆為 cilia，中間有 central microtubules 的陰影，而旁邊的小圓和條狀物為microvilli。", "description": "寫出黃色箭頭所指的構造名稱"}

{"num": "11114", "path": "11114.png", "answer": [Monocyte], "explanation": "典型的核為馬蹄形或腎形，有明顯凹陷（markedly indented），且細胞核不會佔滿整顆細胞。", "description": "此細胞為何？"}

{"num": "11115", "path": "11115.png", "answer": [Elastic Cartilage;Orcein staining], "explanation": "Elastic fiber 被Orcein 染成紅棕色，同時可見Perichondrium（微綠）、Lacuna(空腔)、Chondrocyte(腔內細胞)；Orcein: 染 Elastic fiber 成為紅棕色", "description": "請問下列的組織？染色方式？"}

{"num": "11116", "path": "11116.png", "answer": [Zone of proliferation], "explanation": "zone of reserve cartilage：軟骨的部分；zone of proliferation：lacuna / chondrocyte 密度開始劇烈增加； zone of hypertrophy：lacuna 膨脹； zone of cartilage calcification：軟骨鈣化，正在轉換成硬骨； zone of resorption：骨頭的再塑造（remodelling of bone）。新生層的硬骨質跟殘留的軟骨有顏色有明顯的分別：鈣化的軟骨被染成偏藍色，新生成的骨質則被染成紅色。", "description": "下圖框框是什麼區域？"}

{"num": "11117", "path": "11117.png", "answer": [Centriole], "explanation": "細胞分裂時，中心體複製，可觀察到 2 個中心體，即 4 個中心粒。因中心粒互相垂直，故有縱切面與橫切面，橫切面為 9×3+0。", "description": "請問這是什麼構造？"}

{"num": "11118", "path": "11118.png", "answer": [Internal Elastic Membrane;Smooth muscle cell], "explanation": "經過特殊染色，可以將原本 HE stain 下不明顯的 internal & external elastic lamella 染成黑色，圖片上方箭頭所指處為 internal elastic lamella、圖片下方；箭頭所指處為 external elastic lamella。Tunica media 中，波浪狀的 elastic lamella 很少，多為 smooth muscle，且呈現螺旋形（corkscrew）", "description": "請問綠色箭頭所指的深色線是什麼構造？紅色箭頭所指的是什麼細胞？"}

{"num": "11119", "path": "11119.png", "answer": [Lymphocyte], "explanation": "跟紅血球差不多大，深藍的核圓且比例大，周圍有少許淡藍色細胞質，是和basophil 最大的不同。", "description": "這個細胞為何？"}

{"num": "11120", "path": "11120.png", "answer": [Fenestration(of fenestrated capillary)], "explanation": "細胞質有很多孔洞叫 fenestration，通透性增加，所以有物質交換的功能。", "description": "請問箭頭所指的「構造」名稱為何"}

{"num": "11121", "path": "11121.png", "answer": [Motor end plate], "explanation": "紅色長條為肌肉，肌肉之間有黑色樹枝狀構造為神經纖維，其末端可見到圓盤狀運動終板。", "description": "請寫出下圖箭頭所指構造的名稱"}

{"num": "11122", "path": "11122.png", "answer": [dense irregular connective tissue;Collagen (collageous) fiber], "explanation": "圖中Connective tissue纖維緻密，且走向不一，故為 dense irregular connective tissue，又大部分纖維用HE染色呈粉紅色，故為Collagen fiber。", "description": "寫出下面箭頭所指組織名稱，並寫出為哪種纖維組成。"}

{"num": "11123", "path": "11123.png", "answer": [Motor neuron(Multipolar neuron)], "explanation": "此為 silver stain 下的 multipolar neuron，細胞體積大、多角形， 可見 Nissl bodies, cell body 周圍無 satellite cells，是 spinal cord 之 multipolarneuron，屬於 motor neuron。", "description": "下列是何種細胞"}

{"num": "11124", "path": "11124.png", "answer": [Simple cuboid epithelium], "explanation": "細胞為立方體，核在中央。", "description": "寫出虛線所指之組織"}

{"num": "11125", "path": "11125.png", "answer": [A: Brown Adipose tissue；B: White adipose tissue], "explanation": "Brown Adipose tissue核旁有需多小油滴，沒有合成大油滴，旁有粒線體；White adipose tissue油滴大，細胞胞器被擠到旁邊。 ", "description": "請問A、B分別是什麼組織？"}

{"num": "11126", "path": "11126.png", "answer": [Non-cornified/non-keratinized Stratified squamous epithelium], "explanation": "A為多層扁平上皮細胞，且未角質化", "description": "A爲何種組織"}

{"num": "11127", "path": "11127.png", "answer": [dorsal root ganglion], "explanation": "圖中圈起處細胞較大,一旁有許多小細胞圍繞,為神經元的 特徵。此外 satellite cell 和 fiber 有明顯分界,細胞呈圓形且 核位於細胞中心,可判斷為 Dorsal root ganglion(DRG)。", "description": "請寫出以下組織名稱"}

{"num": "11128", "path": "11128.png", "answer": [Cerebellum], "explanation": "途中可見Granular layer、Purkinje cell及Molecular layer，故為小腦", "description": "寫出圖中器官名稱？（忽略箭頭）"}

{"num": "11129", "path": "11129.png", "answer": [Cilia, Basal body], "explanation": "可見一絲一絲的構造，且長度比stereocilia短，故為cilia；在cilia底部呈深紅色線條構造是由basal body所構成", "description": "請問下圖黃色區域的構造為何？紅色箭頭為何"}

{"num": "11130", "path": "11130.png", "answer": [Astrocyte], "explanation": "此為存在於 CNS medulla 中的 fibrous astrocyte，process 較細長、分岔較少，經由 silver stain 呈黑色。（和protoplastic的區別方式是fibrous astrocyte背景很深，看不到neuron）", "description": "圖中箭頭指的是什麼細胞？"}

{"num": "11131", "path": "11131.png", "answer": [Goblet cell; PAS], "explanation": "Goblet cell 為空泡狀的分泌細胞，可用PAS染色", "description": "深紫色細胞為何？用何者染色方式製備？"}

{"num": "11132", "path": "11132.png", "answer": [Plasma cell], "explanation": "細胞橢圓形，細胞核偏向一邊，細胞核的外圍和中心較深染，呈現車輪狀，細胞質也有較為淡染、空泡狀的區域（為Golgi apparatus），故綜合以上特徵，可推論為plasma cell。", "description": "請問這是什麼細胞？"}

{"num": "11133", "path": "11133.png", "answer": [(White) Adipose tissue; osmic acid (fixation)], "explanation": "Osmic acid 染色並固定脂肪，被染到的地方呈現黑色。", "description": "這是什麼組織？製備方法為何？"}

{"num": "11134", "path": "11134.png", "answer": [Elastic (elastin) fiber], "explanation": "Loose connective tissue中，Elastic fiver被resorcin fuchsin染成藍紫色的細絲線，較粗的淺紫色線條則為collagen fiber。背景中可見較深染的紡錘狀細胞體，為fibroblast。", "description": "請寫出紫色線條的名稱。(Be specific)"}

{"num": "11135", "path": "11135.png", "answer": [Mast cell; metachromacia], "explanation": "Mast cell特徵為顆粒豐富，中間略呈中空狀的大型細胞。Mast cell的異染性是因為Toluidine blue stains granules被mast cell中的大量陰離子抓住，使染劑折射率改變(藍色變為紫紅色)。", "description": "請問下列呈紅色的細胞為何？並寫出將染劑由藍轉紅的特性為何？"}