technique) and optical density readout from an automatic microplate densitometer (Elx 800). The types of lesions developing in cell nuclei was estimated by comet test. The results were subjected to statistical analysis using Mann-Whitney's test and Statistica 7.1 software.
In both cell lines, the inhibition of tumour cell proliferation (%) clearly increased in parallel to growing DOX concentration, but the resistant cell line proved to be definitely less sensitive. MLT also significantly inhibited cell proliferation of LoVo and $LoVo_{DX}$ cells, but an increase in MLT concentration did not intensify the cytotoxic effect. However, in the case of LoVo cells, MLT intensified cytotoxicity of DOX at the concentration of K3. In parallel, MLT significantly overcame resistance to DOX of $LoVo_{DX}$ line cells.
The obtained data confirmed the anti-proliferative effects of MLT on some neoplastic cell lines and its role in overcoming resistance to DOX in resistant cell lines.

ARTERIES OF THE HEAD OF THE REPRESENTATIVE *RHINOCEROTIDAE*

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The aim of this study was to conduct the comparative analysis of arteries of the head in the white rhinoceros, a representative of the *Rhinocerotidae* family.
Observations were conducted on a corrosion cast of arteries of the head of a female white rhinoceros aged 3.5 years, which was prepared from post-mortem examination material obtained from the Zoological Garden in Poznań.
Analysis of arteries of the head in the analyzed rhinoceros from the family *Rhinocerotidae* showed certain common features as well as differences in comparison to the vascular pattern described in representatives of the families *Equidae* and *Tapiridae*.
The common carotid artery in the rhinoceros, similarly to *Equidae* and tapirs, undergoes final segmentation into the external carotid artery and the internal carotid artery.
The lingual artery and the facial artery in the rhinoceros, similarly as in the tapir, branch directly off the external carotid artery. In all *Equidae*, the lingual artery and the facial artery branch off the linguofacial trunk, which is a permanent branch of the external carotid artery.
The method of branching of the superficial temporal artery, found in the rhinoceros, is not observed in representatives of other families from the order *Perissodactyla*. Of all *Perissodactyla*, only the internal carotid artery in the rhinoceros bifurcates into numerous vessels even before it enters the cranial cavity and forms the arterial rete mirabile (epidural rostral), from which arteries forming the arterial circle of the brain originate.
The rete mirabile of the carotid artery in the rhinoceros is the only known case of the occurrence of an arterial rete mirabile in the area of the arteries of the head in animals from the order *Perissodactyla*. In contrast to the rostral epidural rete mirabile in *Artiodactyla* in the rhinoceros it communicates with the maxillary artery only through a single thin ramus.
The common characteristic of the arterial pattern of the head in the white rhinoceros and all *Perissodactyla* is the method of final segmentation of the common carotid artery.
In the white rhinoceros, the lingual artery and the facial artery, similarly as in animals from the *Tapiridae* family, branch off separately from the arterial route of the head.
The arterial rete mirabile in the area of the arteries of the head in the rhinoceros is the only such known case in animals from the order *Perissodactyla*, and at the same time a specific distinguishing characteristic of the family *Rhinocerotidae*.

ARTERIES OF THE CRANIAL CAVITY OF THE AUROCHS (*BOS PRIMIGENIUS BOJANUS* 1827) — RECONSTRUCTION ATTEMPT

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The reconstruction attempt of the arteries of the cranial cavity of the extinct aurochs was based on the comparison analysis of the cranial base of the skulls of seven aurochs and modern species of the *Bovinae* subfamily. Moreover, the pattern of the arteries of the brain of modern genera (*Bison, Bos, Boselaphus, Taurotragus* and *Tragelaphus*) was studied. Also, taxonomy analysis of the *Bovinae* subfamily was also made.
A large similarity of the crania skeleton of aurochs and of the modern species of the *Bovinae* subfamily was observed. The Foramen orbitorotundum, the foramen ovale, the jugular foramen and the petrobasal fissure are common for all ruminants and are penetrated by the blood vessels. The hypoglossal nerve canal also participates in cranial cavity drainage via the condylar artery.
In the modern species of the *Bovidae* family, the rostral branches to the rostral epidural rete mirabile pass through the foramen orbitorotundum. Whereas, the caudal branch to the rostral epidural rete mirabile passes through the foramen ovale.
The rostral epidural rete mirabile of the *Bovinae* subfamily species lies on the cranial base, inside the cranial cavity, around the hypophyseal fossa. Additional rostral epidural rete mirabile were observed in banteng, bison, domestic cattle, yak, zebu and European bison (*Bison* and *Bos* genera). The rostral epidural rete mirabile was absent in the *Boselaphus, Tragelaphus* and *Taurotragus* genera.
The internal carotid artery, only in cattle foetuses, is connected with the rostral epidural rete mirabile. The extracranial segment of the internal carotid artery was obliterated in all investigated adult specimens (also probably in the aurochs). The intracranial segment was preserved as the interretial and the over-retial sections. The over-retial section of the internal carotid artery, in all investigated species, was terminally divided into the arteries, which represent the main components of the circle of the brain.
The comparison analysis of the arterial vessels supplied the brain in all investigated species, suggested, the vessels pattern of the aurochs was perhaps similar to the vessels affirmed in the *Bison* and *Bos* species only.

ARTERIAL PATTERN OF THE GIRAFFE BRAIN

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The aim of the study was to analyze the system of arteries of the brain in the giraffe, including the arterial circle of the brain, its branches and junctions, as well as individual variations of vessels. Analyses were performed on 12 heads of giraffes. Arteries of these heads were injected with latex and vinyl superchloride.
Arteries supplying the brain in the giraffe branch off the arterial circle of the brain, formed as a result of the segmentation of the end intracranial part of the internal carotid artery.
Bilateral rostral cerebral arteries and caudal communicating arteries, together with the basilar artery, form the arterial circle of the brain.
The giraffe brain is supplied by the rostral epidural rete mirabile, which is connected to the maxillary artery. Moreover, a thin condylar artery branching off the occipital artery joins the rete.
Branches to individual brain structures branch off from segments of the arterial circle of the brain. A rostral choroid artery branches off the initial segment of the rostral cerebral artery. The middle cerebral artery is the strongest branch of the central segment of the rostral cerebral artery. The internal ethmoidal artery most frequently branches off the end segment