publications describing aspects of the immune phenotype of these animals, there is limited information on background histopathological changes, in particular those seen in non-lymphoid organs. We have performed a retrospective review of microscopic findings from 138 control Rowett nude rats (72 males and 66 females) from 6, 26 or 52 week toxicology studies, conducted at our laboratories between 2012 and 2014. While many lesions were similar in nature and incidence to those seen in outbred rats, others were overrepresented in the athymic animals. These included unilateral agenesis of the urinary and/or genital tract, abscessation within the prostate, generalized hypertrophy of salivary gland acinar cells and pigment accumulation in the kidney cortical tubular epithelium of females. In addition, previously reported differences in lymphoid organ morphology, due to the absence of T-cells were observed. Knowledge of spontaneous lesions peculiar to this strain will be useful to separate background pathology from test article-related effects.

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P14-025
Intrauterine exposure of Mongolian gerbil to di-n-butyl phthalate does not alter testis structure but maintains higher testosterone levels in the first weeks of age

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Studies have shown that the gonocytes, the male germ cells found in fetal and neonatal testis, are direct targets of endogenous steroids and endocrine disrupters such as di-n-butyl phthalate (DBP). This study evaluated if gestational exposure of Mongolian gerbil to DBP interferes with the neonatal testis development and androgen synthesis. Pups were assigned into control, DBP- and vehicle-treated groups ($n = 5$), at 1, 7 and 14 days. DBP (100 mg/kg/day) or vehicle only was administered, via gavage, from 8 to 24 gestational days. Testes were processed for light microscopy, immunocytochemical reaction for anti-Müllerian hormone (AMH) following stereological analysis for estimation of numerical density (Nv) of gonocytes and tissue proportions of seminiferous cords and interstitial tissue. No significant differences were observed among groups with relation to body weight and anogenital distance. DBP exposure did not alter testis weight or testis histology for all ages, in comparison with control pups. Gonocyte Nv and AMH expression were also unchanged at 1d and 7d. However, seminiferous cord diameter increased for DBP-treated gerbil at 7d and decreased at 14d ($p = 0.006$ and 0.004, respectively), and the circulating testosterone was higher for DBP groups at 7d (33% higher, in comparison with control group) and 14d. Thus, the present doses of phthalate did not induce morphological alterations in testis of gerbil or affect the number of gonoctytes, but interfered in testosterone synthesis in the perinatal period, avoiding androgen fall in the first week of age.

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P14-026
Evaluation of the toxicity of nicotine and its metabolite cotinine on crustacean *Daphnia magna*

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Cotinine, the major metabolite of nicotine, is currently used as biomarker for the tobacco exposure. Nowadays controversy exists regarding the toxic potential of cotinine. In order to evaluate the toxic effects of cotinine comparatively with its parent compound, *Daphnia magna* bioassay has been used. It has been shown that the biological screening by using invertebrate bioassay present a high degree of correlation with the acute *in vivo* toxicity and is predictive for the cytotoxicity on human cells cultures. Serial dilution was made from nicotine and cotinine stock solutions in order to test concentrations from 0.01 to 1 μM. Each determination was performed in triplicate on 10 daphnids. The lethality was recorded after 24 and 48 h of exposure in a synthetic water environment at constant condition of temperature and humidity (25 °C, 75%RH). The LC_{50} values after 24 and 48 h of exposure were calculated by least square fit method using lethality versus concentrations curves. After 24 h of exposure, cotinine does not exhibit toxicity, while nicotine had a median lethal concentration (LC_{50}) of 2.13 μM. The lethality induced by cotinine was shown after 48 h of exposure, with a LC_{50} of 0.96 μM. The overall results indicate that nicotine has a higher toxicity than cotinine, as the ratio between the LC_{50} values (cotinine/nicotine) after 48 h of exposure is of approximately 5.9. The results provide valuable data to investigate the toxic potential of cotinine in various *in vitro* experimental models. Further studies are required to deepen the mechanism of cotinine toxicity, as well as the influence on the metabolism of *D. magna* and the bioaccumulation of nicotine and cotinine in this organism.

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P14-027
Cigarette smoke and cigarette smoke condensate exposure induces cytotoxicity and inflammation in precision-cut lung slices

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Chronic obstructive pulmonary disease (COPD) is characterized by progressive destruction of the lung parenchyma resulting in emphysema and chronic inflammation of the airways. COPD is the