

Title	Changes of glutathione and taurine concentrations in lenses of rat eyes induced by galactose-cataract formation or ageing
Sub Title	
Author	粕谷, 美南子(Kasuya, Minako) 糸井, 素一(Itoi, Motokazu) 小林, 静子(Kobayashi, Shizuko) 須永, 博之(Sunaga, Hiroyuki) 鈴木, 和夫(Suzuki, Kazuo)
Publisher	共立薬科大学
Publication year	1992
Jtitle	共立薬科大学研究年報 (The annual report of the Kyoritsu College of Pharmacy). No.37 (1992. ) ,p.60- 60
JaLC DOI	
Abstract	
Notes	抄録
Genre	Technical Report
URL	<a href="https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000037-0060">https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000037-0060</a>

慶應義塾大学学術情報リポジトリ(KOARA)に掲載されているコンテンツの著作権は、それぞれの著作者、学会または出版社/発行者に帰属し、その権利は著作権法によって保護されています。引用にあたっては、著作権法を遵守してご利用ください。

The copyrights of content available on the KeiO Associated Repository of Academic resources (KOARA) belong to the respective authors, academic societies, or publishers/issuers, and these rights are protected by the Japanese Copyright Act. When quoting the content, please follow the Japanese copyright act.

# **Changes of Glutathione and Taurine Concentrations in Lenses of Rat Eyes induced by Galactose-cataract Formation or Ageing**

Minako KASUYA\*, Motokazu ITOI\*, Shizuko KOBAYASHI, Hiroyuki SUNAGA\*\*  
and Kazuo T. SUZUKI\*\*

柏谷美南子\*, 糸井素一\*, 小林静子, 須永博之\*\*, 鈴木和夫\*\*

Sulfur-containing compounds in the lens were studied in relation to galactose cataract formation. Female Wistar rats were fed a 35% galactose diet and the changes in lens sulfur concentration and its distribution on a gel filtration column were compared with age-related changes. Concentration of sulfur in the whole lens decreased with time. A low constant level was attained on the fifth day of the galactose diet. A decrease of sulfur concentration in the soluble fraction of the lens paralleled that of the whole lens which was correlated with the decrease of glutathione and taurine concentrations on a gel filtration column by high-performance liquid chromatography-inductively coupled argon plasma atomic emission spectrometry (HPLC-ICP). Concentration of magnesium in the lens decreased after the fifth day, while the ratio of sodium to potassium increased. These changes in sulfur-containing compounds and metals were observed prior to the onset of cataract formation.

---

\* (財) 白内障研究所,

\*\* 国立環境研究所 Exp. Eye Res. 54 (1992), 49—53. に発表.