Sandhy Kartikasari, 2015, **Aktivitas Polisakarida Krestin Ekstrak *Coriolus versicolor* pada Spermatogenesis Mencit (*Mus musculus*)**, dibawah bimbingan Dr. Sri Puji Astusi Wahyuningsih, M.Si. dan Dr. Alfiah Hayati, M. Kes., Departemen Biologi, Fakultas Sains dan Teknologi, Universitas Airlangga, Surabaya.

ABSTRAK

Penelitian ini bertujuan untuk mengetahui: (1) adanya pengaruh perbedaan dosis polisakarida krestin dari ekstrak *Coriolus versicolor* yang diberikan pada mencit selama 35 hari terhadap jumlah sel spermatogenik; (2) adanya pengaruh perbedaan dosis polisakarida krestin dari ekstrak *Coriolus versicolor* yang diberikan pada mencit selama 35 hari terhadap ukuran tubulus seminiferus. Penelitian ini menggunakan 28 ekor mencit (*Mus musculus*) jantan strain Balb/C, berumur 4-8 minggu, dan berat badan berkisar 20-25 gram. Hewan coba dibagi menjadi empat kelompok perlakuan yaitu kelompok kontrol (K) yang diberi akuades secara oral, serta P1, P2, dan P3 sebagai kelompok perlakuan yang diberi ekstrak polisakarida krestin dengan dosis berturut-turut adalah 15; 30; 60 mg/Kg BB secara oral selama 35 hari. Selanjutnya, dilakukan pembuatan preparat histologi testis untuk pengamatan struktur sel spermatogenik. Data yang dikumpulkan berupa jumlah sel spermatogonia, spermatosit, dan spermatid oval, serta ukuran diameter tubulus dan tebal epitel tubulus. Data yang dikumpulkan berupa jumlah sel spermatogonia, spermatosit, dan spermatid oval, serta ukuran diameter tubulus dan tebal epitel tubulus. Data jumlah sel spermatosit, spermatid oval, diameter tubulus dan tebal epitel tubulus diuji dengan *One Way ANOVA* dan *Duncan*. Data jumlah sel spermatogonia diuji menggunakan *Brown forsythe*. Hasil penelitian ini menunjukkan pemberian polisakarida krestin ekstrak *C. versicolor* tidak berpengaruh terhadap jumlah sel spermatogonia, spermatosit, diameter tubulus, dan tebal epitel tubulus, tetapi menurunkan jumlah sel spermatid oval pada dosis 15 mg/Kg BB.

Kata kunci: *Coriolus versicolor*, *Mus musculus*, spermatogenesis, tubulus seminiferus

Sandhy Kartikasari, 2015, **The Activity of Polysaccharide Crestine from *Coriolus versicolor* Extraction Spermatogenesis in Mice (*Mus musculus*)**, under the guidance of Dr. Sri Puji Astusi Wahyuningsih, M.Si. and Dr. Alfiah Hayati, M. Kes., Departement of Biology, Faculty of Scienceand Technology, Airlangga University, Surabaya.

ABSTRACT

The objectives of this study were to determine:(1) the effect of different doses of polysaccharide crestine from *Coriolus versicolor* extract after 35 days of injection on the number of spermatogenic cells in mice (*Mus musculus)*;(2) the effect of different doses of polysaccharide crestine from *Coriolus versicolor* extract after 35 days of injection on the diameter of seminiferous tubules in mice (*Mus musculus)*. Twenty eight 4-8 weeks old male mice with the weight between 20-25 g were used in this study. Each mice were divided into four groups. The first group was the control group wich treated by giving them aquades by gavage for 35 days . The other groups (P1, P2, P3) as the treatment groups, were treated by using three different doses of polysaccharide crestine (15; 30; 60 mg/Kg of bodyweight respectively) injected by gavage for 35 days. Testicular histological slides were prepared to observe the structure of spermatogenic cells. The data of the parameters such as the number of spermatogonia cells, spermatocyte cells, oval spermatids cells, the diameter of seminiferous tubules, and the width of seminiferous tubules epithel were collected. The number of spermatocyte cells, oval spermatids cells, the diameter of seminiferous tubules, and the width of seminiferous tubules epithel were tested using *One Way ANOVA* followed by *Duncan* test.The number of spermatogonia cells were tested using *Brown forsythe*. The results showed that the treatment of polysaccharide crestine from *Coriolus versicolor* extract had no effect on the number of spermatogonia cells, spermatocyte cells, the diameter of seminiferous tubules, and the width of seminiferous tubules epithel, but decreasing the number of oval spermatids cells at 15 mg/Kg of body weight *dose*.

Keywords : *Coriolus versicolor*, *Mus musculus*, spermatogenesis, seminiferous tubules