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(54) **METHODS FOR GAMETE PRODUCTION IN BIRDS**

(75) Inventors: **Samuel Pardue**, Raleigh, NC (US);  
**James Petite**, Raleigh, NC (US);  
**Susan D'Costa**, Raleigh, NC (US);  
**Yonghong Song**, Raleigh, NC (US)

(73) Assignee: **North Carolina State University**,  
Raleigh, NC (US)

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(58) **Field of Search** ..... 119/6.8; 424/582

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*Primary Examiner*—Yvonne Abbott

(57) **ABSTRACT**

The present invention provides methods for the production of avian gametes, comprising reducing endogenous primordial germ cells (PGCs) in a recipient bird in ovo and introducing donor primordial germ cells from another bird into the recipient bird in ovo. The present invention further provides a method of increasing the ratio of male offspring from a female bird, comprising reducing endogenous PGCs in the female bird in ovo, introducing donor PGCs from another bird into the female bird in ovo, and incubating the female bird to hatch. The female bird is raised to sexual maturity and bred to produce a plurality of eggs having a higher proportion of male eggs than in the absence of the inventive methods. In some embodiments, the donor PGCs are from a different species than the recipient bird. In preferred embodiments, endogenous PGCs are reduced using busulfan.

**46 Claims, 1 Drawing Sheet**

