

# Introduction

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The goal of **nprcmanager** is to implement Genetic Tools for Colony Management. It was initially conceived and developed as a Shiny web application at the Oregon National Primate Research Center (ONPRC) to facilitate some of the analyses they perform regularly. It has been enhanced to have more capability as a Shiny application and to expose the functions so they can be used either interactively or in R scripts.

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At present, the application supports 5 functions:

1. Quality control of studbooks contained in text files or Excel workbooks and of pedigrees within LabKey Electronic Health Records (EHR)
2. Creation of pedigrees from a lists of animals using the LabKey EHR integration
3. Creation and display of an age by sex pyramid plot of the living animals within the designated pedigree
4. Generation of Genetic Value Analysis Reports
5. Creation of potential breeding groups with and without proscribed sex ratios and defined maximum kinships.

### **For more information see:**

A Practical Approach for Designing Breeding Groups to Maximize Genetic Diversity in a Large Colony of Captive Rhesus Macaques (*Macaca mulatto*) Vinson, A ; Raboin, Mj *Journal Of The American Association For Laboratory Animal Science*, 2015 Nov, Vol.54(6), pp.700-707 [Peer Reviewed Journal]