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# **PhD: Evolutionary models for describing regulatory diversity.**

*A Data Management Plan created using dmponline*

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**Affiliation:** The University of Sheffield

**Funder:** Natural Environment Research Council (NERC)

**Template:** NERC Template

## **Project abstract:**

Adaptive evolution through changes in coding sequence is severely limited by functional constraints. As such, differential regulation of the genome is often central to the generation of novelty, complex body plans, and intraspecific diversity. We aim to explore the role of differential expression, differential splicing and gene regulatory network rewiring in the generation of sex differences across an avian lineage. As such we will use pre-existing and novel RNAseq datasets to answer questions regarding the evolutionary dynamics guiding regulatory diversity.

**Last modified:** 15-07-2021

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# PhD: Evolutionary models for describing regulatory diversity. - Outline DMP

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## Outline DMP

### Project Title

Detecting signatures of selection in regulatory diversity.

### Principal Investigator(s) / Grant Holder

Peter Price

### Will the grant produce data?

- Yes

Yes. The project will generate Illumina paired RNAseq data and PacBio IsoSeq data for several avian species.

### Nominated Data Centre(s)

- Environmental Information Data Centre (EIDC)

**Briefly list the datasets that the project will produce. If the total is likely to be larger than 1TB please indicate.**

#### **Illumina Paired-end RNAseq data**

Samples: five male and five female gonads across two developmental stages for five avian species

*Species: Numida meleagris, Anas platyrhynchos, Meleagris gallopavo, Phasianus colchicus and Taeniopygia guttata.*

*Datatype: FASTQ*

#### **PacBio Isoseq data**

Samples: pooled data from two male and two female gonads from two developmental stages from two species (one library per species)

*Species: Phasianus colchicus and Meleagris gallopavo*

*Datatype: FASTA and BAM*

