Diversity in Science: A Personal Journey

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1. Chronology on Becoming a Scientist

Early years: magician

High school: dancer

Undergraduate: scientist

Graduate school & post doc: scientist

Faculty position: scientist

1. Chronology on Becoming a Scientist

Affirmative Action Programs
MBRS, MARC - undergraduate
MARC - graduate
Funded by NIGMS

1. Chronology on Becoming a Scientist

Affirmative Action Programs

Because of my skin color?

Or because I am qualified?

Unfair advantage?

Affirmative Action Programs

Advantage that offsets a disadvantage

1. Chronology on Becoming a Scientist

Color of My Skin?

-Rarely Neutral

-Either:

Disadvantage

Advantage

1. Chronology on Becoming a Scientist

Two Jobs

Being a Scientist

Curing Society's Disease

2. Culture and Science

Foreign Land:
-different experiences
-different advantages and disadvantages
-different ways of thinking
-but still lots of overlap

2. Culture and Science

DIVERSITY

-Being fair

-Force to

-Breeds success

2. Culture and Science

Diversity in Ethnicity:

African
Yoruba (Nigeria)
Ibo (Nigeria)
Malagasian (Madagascar)

Native American
Tuscarora (SouthEast)
Pawmunkey (SouthEast)

European
Scott-Irish
German

2. Culture and Science

Diversity in Peoples and Cultures:

Multiethnic/Multicultural Group

-African/African American/Caribbean

-Native American

-Caucasian American/Canadian/European

-Brazilian/Puerto Rican/Mexican

-Asian/Japanese/Chinese/Taiwanese

-Indian/India

2. Culture and Science

Diversity in Science:

Approaches I use

-BEHAVIOR

-ANATOMY

-ELECTROPHYSIOLOGY

-MOLECULAR BIOLOGY

-BIOINFORMATICS

-EVOLUTION

2. Culture and Science

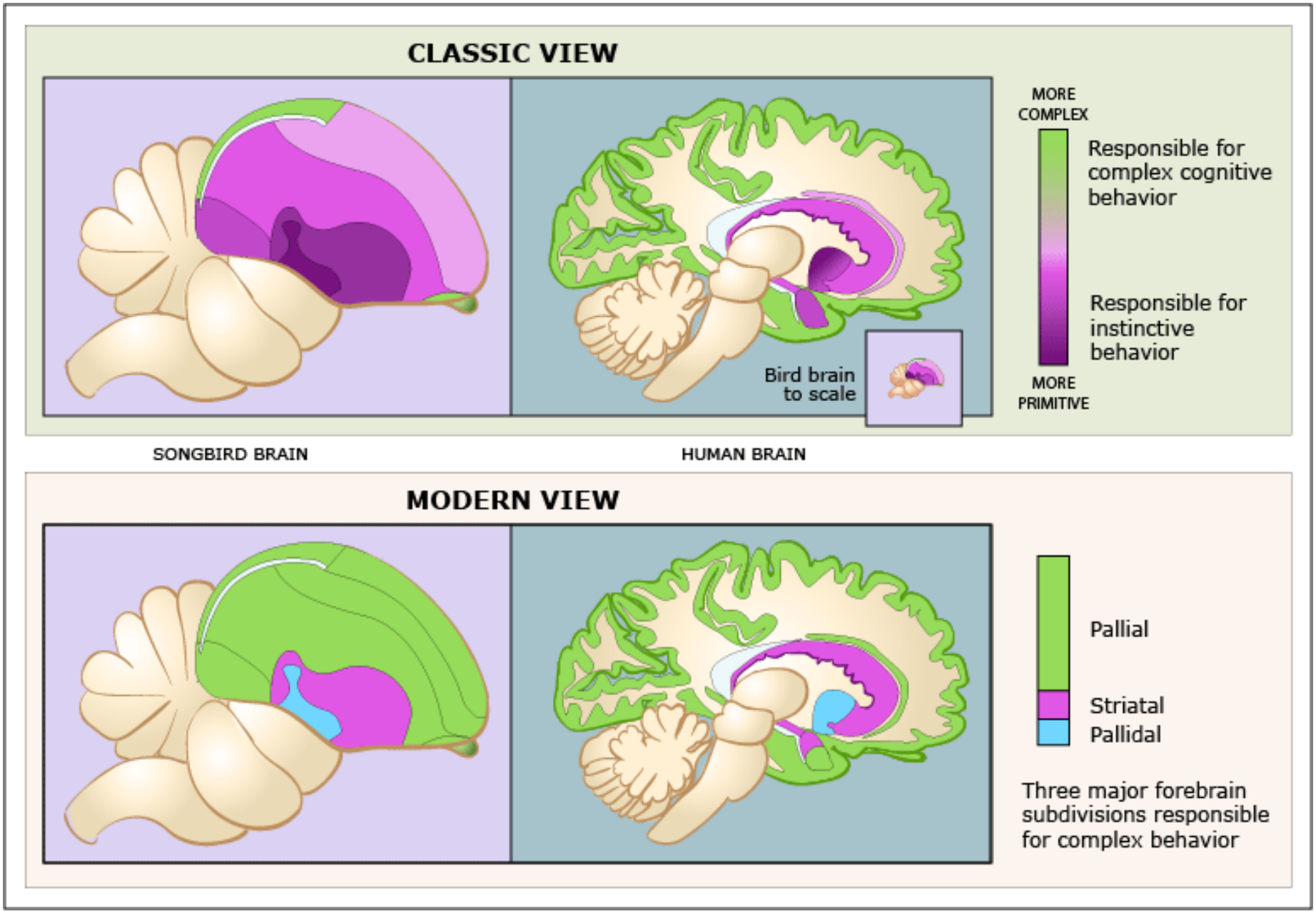
COLLABORATIVE
VS
INDIVIDUALISTIC

-First vs last vs co-author?

-Independent of former advisor?

-Graduate and post doc at different places?

-Lone scientist?

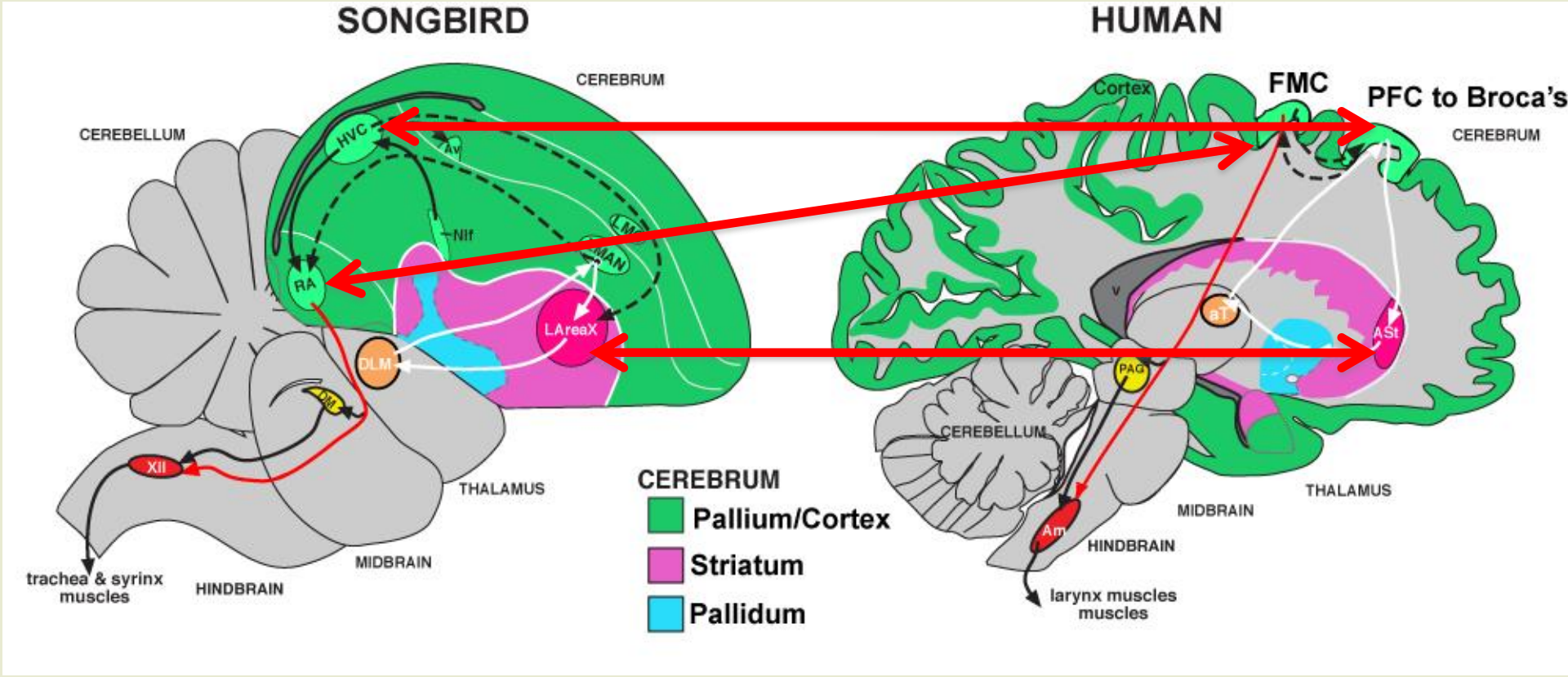


Avian Brain Nomenclature Forum: Reiner et al 2004; Jarvis et al 2005 Nature Rev. Neurosci.

African Grey Parrot - training to count (concept of one)

Irene Pepperberg & Alex

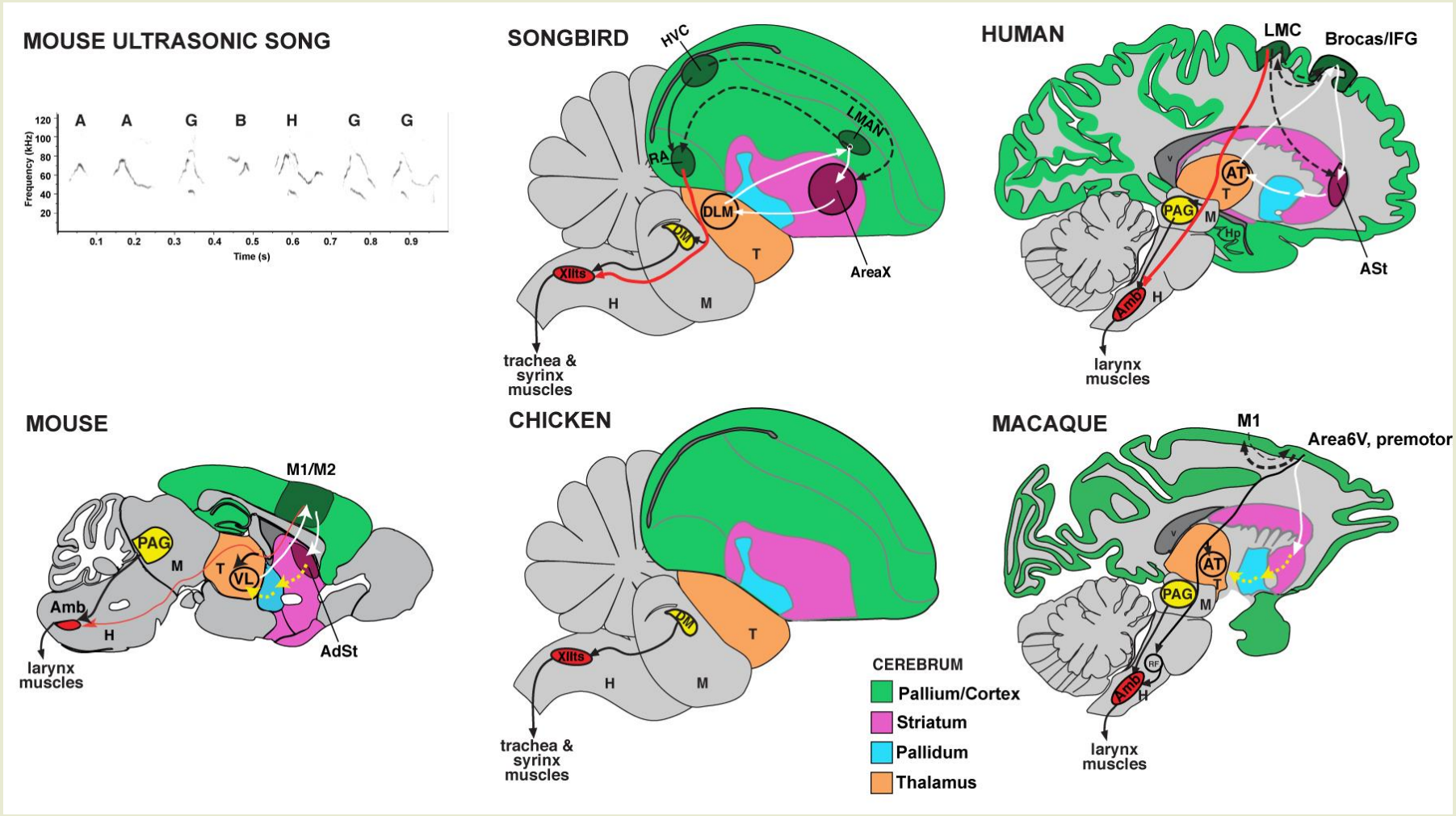
3. Songbirds as a model of human speech



Jarvis 2004 Ann NY Acad Science

Time (s)

2. Mouse song system connectivity more similar to songbird and human



Arriaga, Zhou, Jarvis 2012 PLoS ONE

2. Culture and Science

WHAT TO STUDY?

-Housekeeping genes?

-Regulatory genes?

-Who decided this?