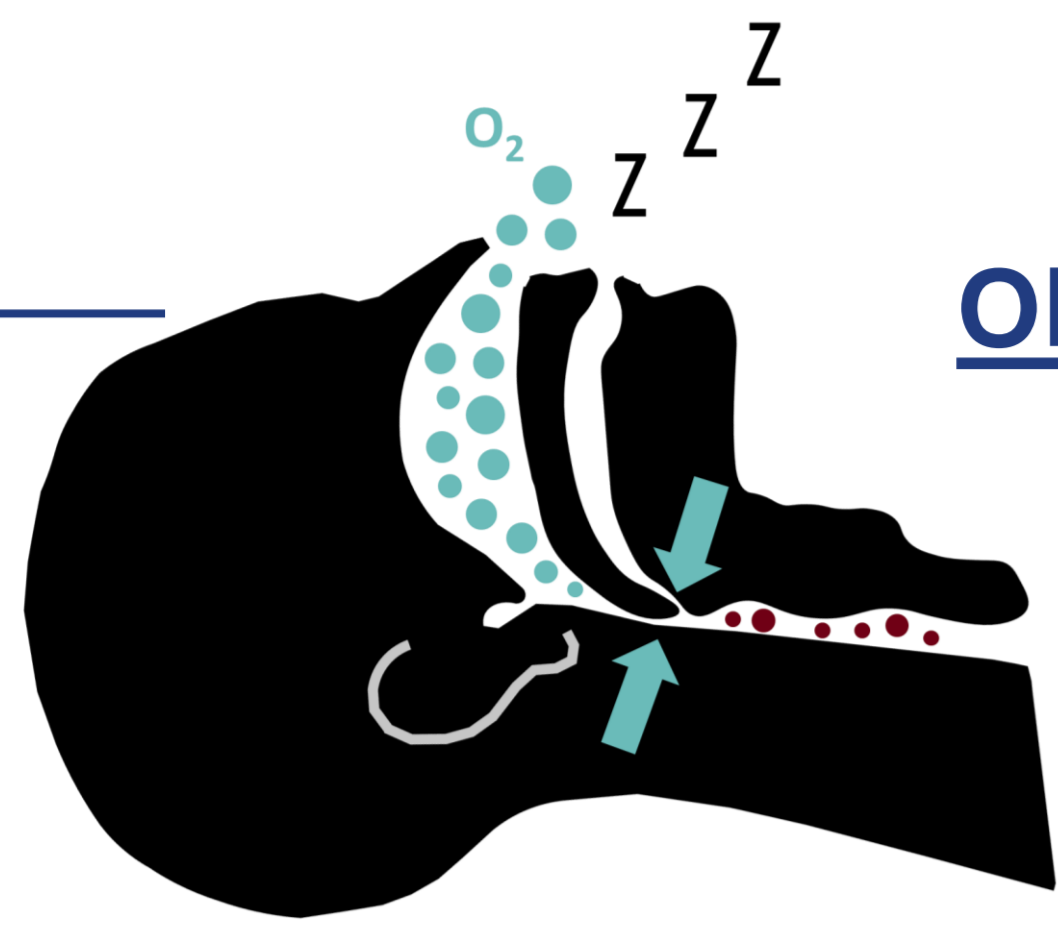


Exploring microRNAs as biomarkers for Obstructive Sleep Apnea

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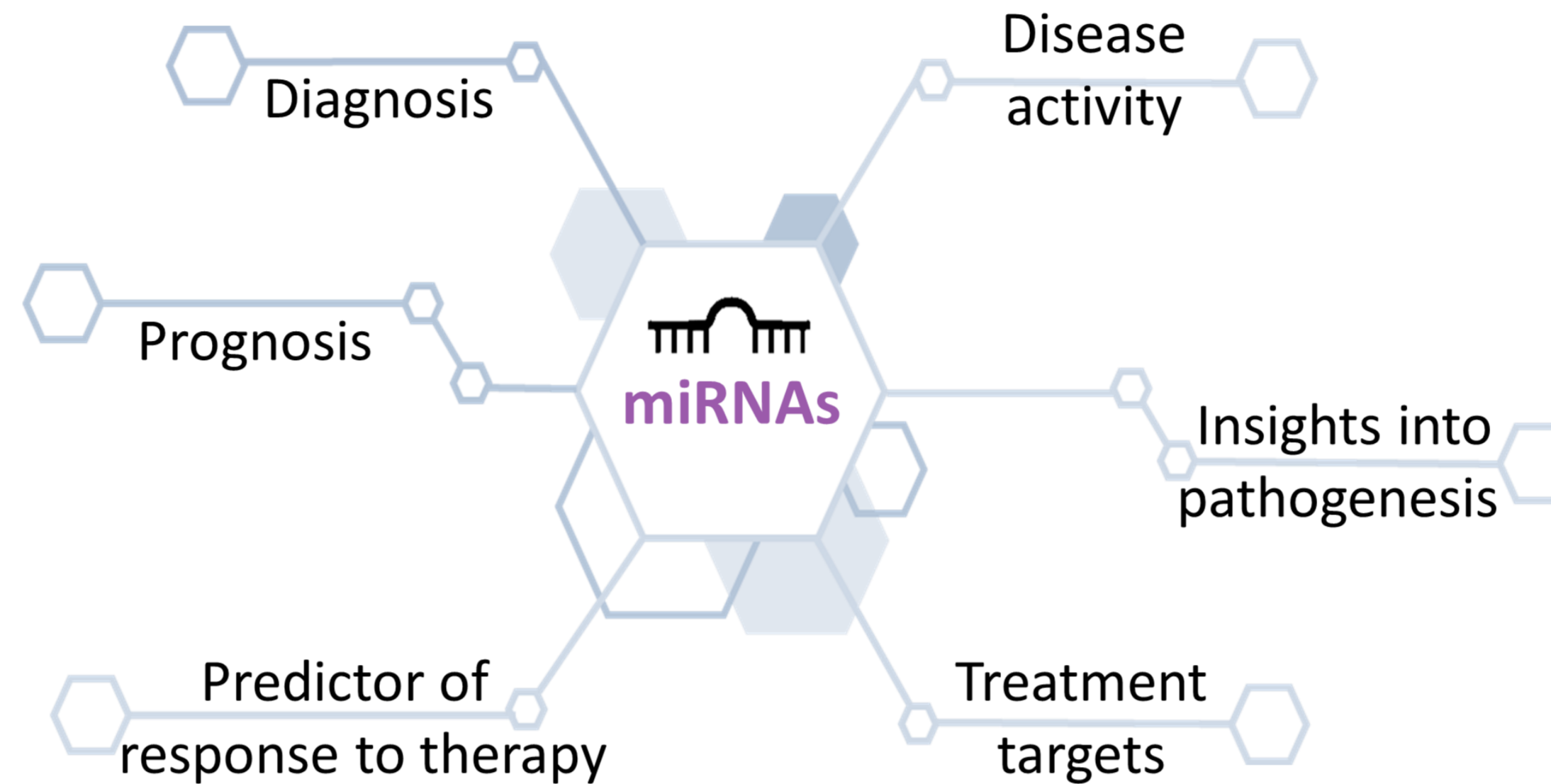
¹CNC-UC: Centre for Neuroscience and Cell Biology, University of Coimbra; ²CIBB: Center for Innovation in Biomedicine and Biotechnology, UC; ³IIUC: Institute for Interdisciplinary Research; ⁴FFUC: Faculty of Pharmacy, UC; ⁵DCV-UC: Department of Life Sciences, UC, Coimbra, Portugal; * equal contribution



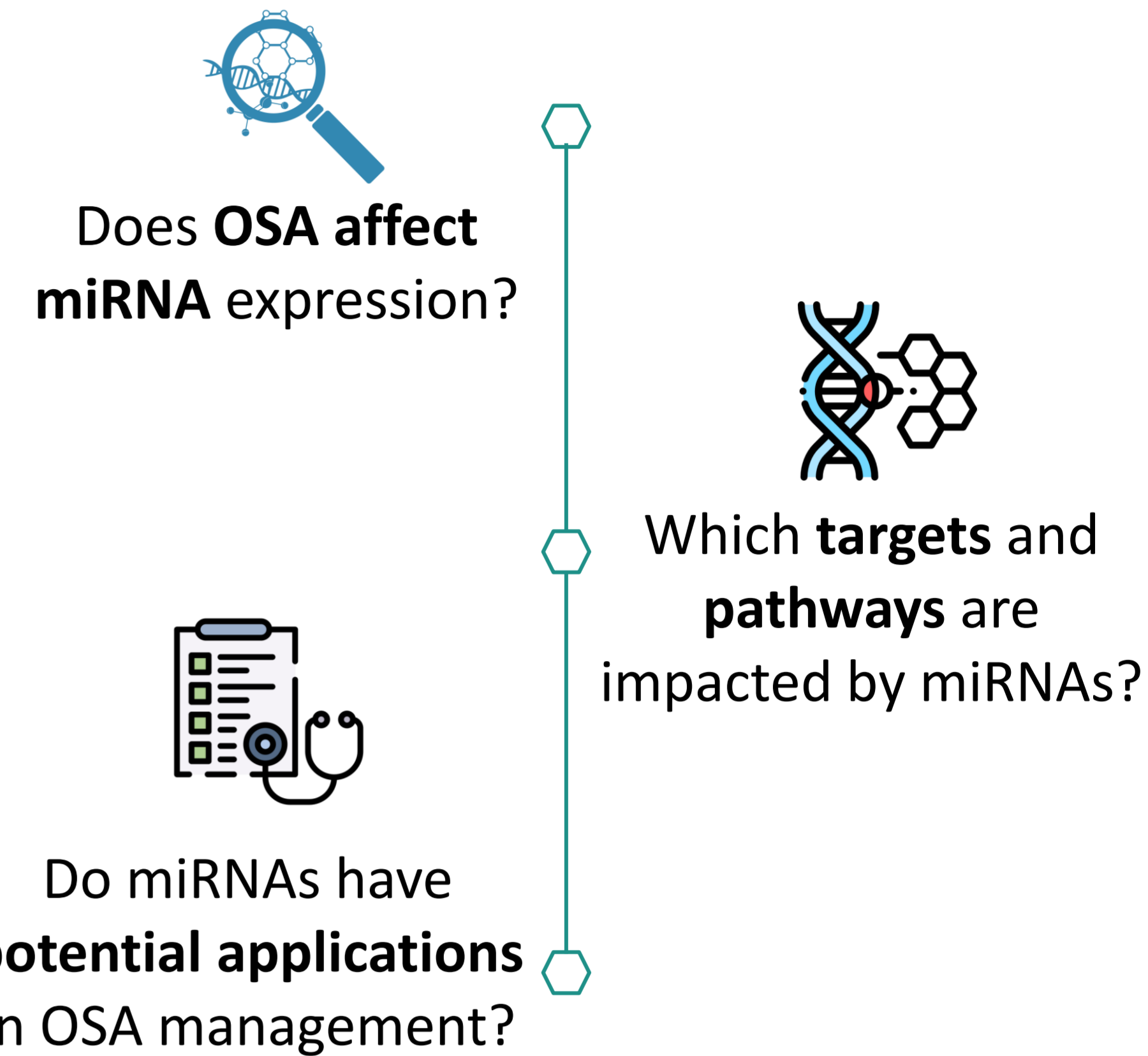
OBSTRUCTIVE SLEEP APNEA

URGENT NEED OF NEW DIAGNOSIS APPROACHES

BIOMARKERS



AIM



≥ 5 breathing interruptions / hour of sleep

Intermittent hypoxia | Sleep fragmentation

80 – 90 % of OSA cases are undiagnosed

- Cumbersome to the patient
- Time consuming
- Expensive
- Labor intensive
- Associated with long waiting lists

METHODOLOGY

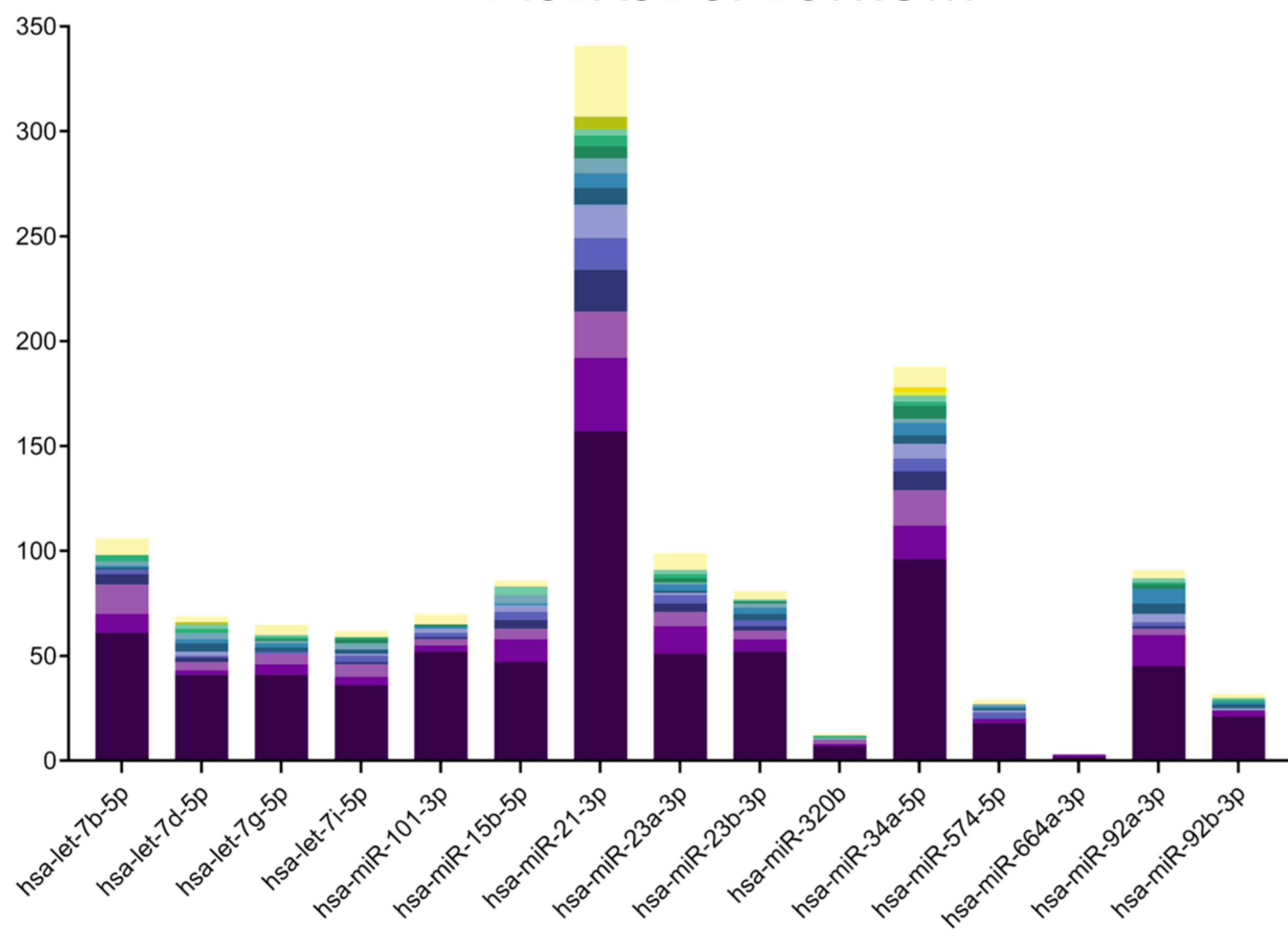
PROSPERO ID: CRD42023386720 LITERATURE DATABASES: PubMed/Medline and Web of Science

SELECTION CRITERIA:

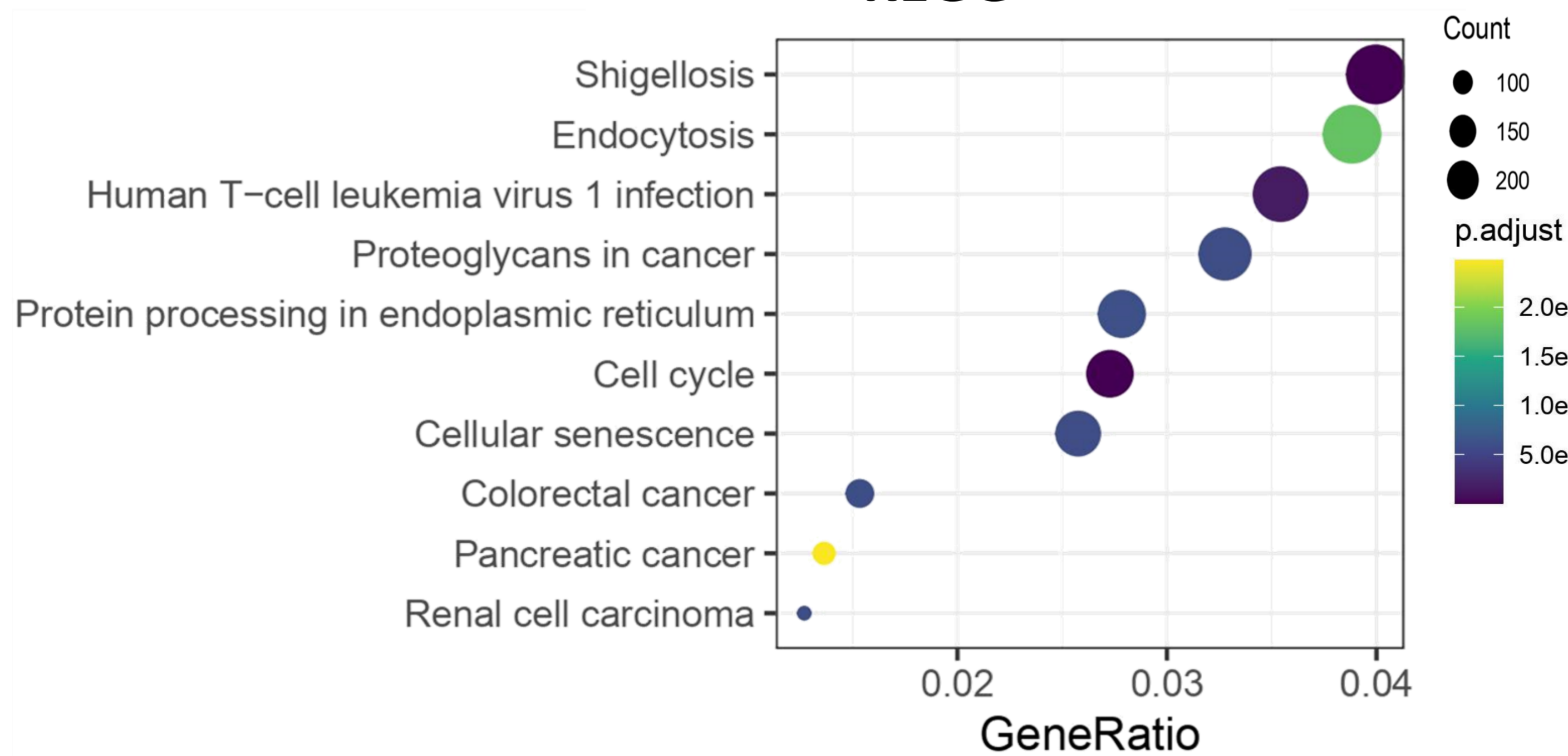
- With and without OSA AHI ≥ 5 or < 5, assessed by PSG in a sleep unit
- Differentially expressed miRNAs in OSA patients
- Validated by quantitative PCR
- No comorbidities defined in inclusion criteria
- Research Paper



DISEASE SPECTRUM

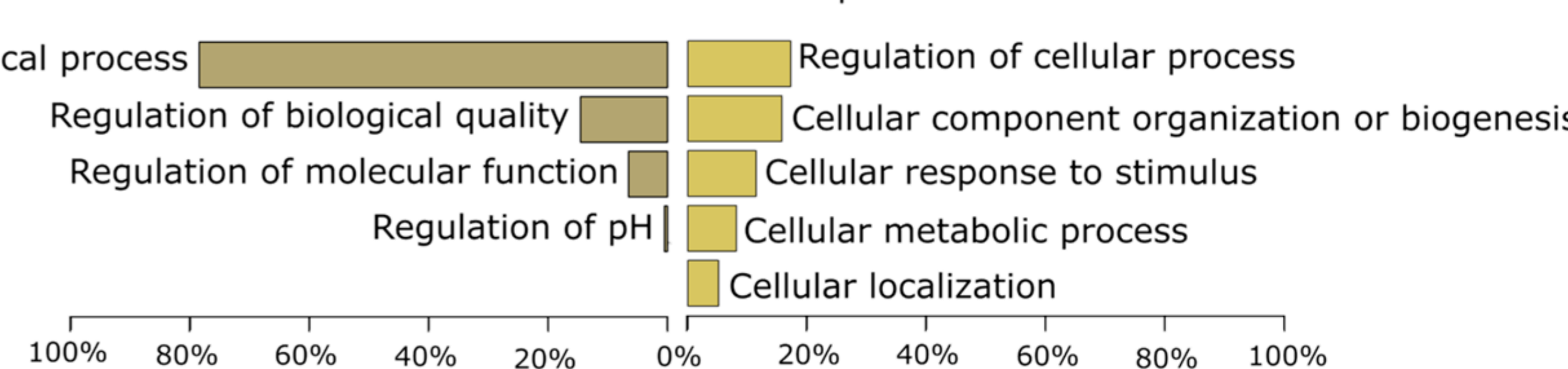
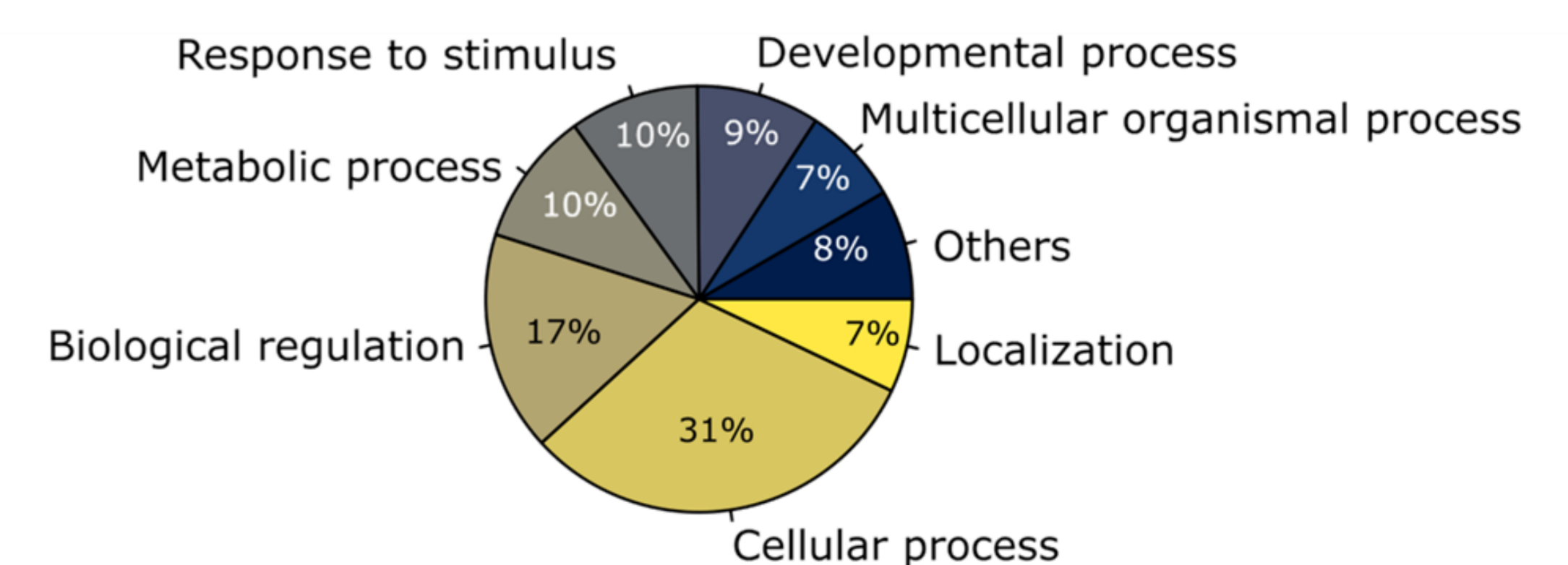
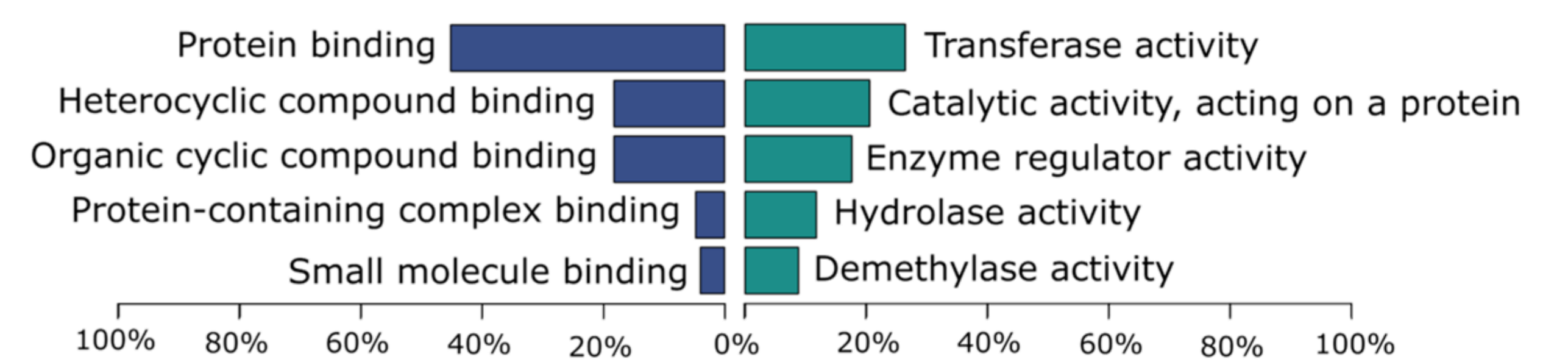
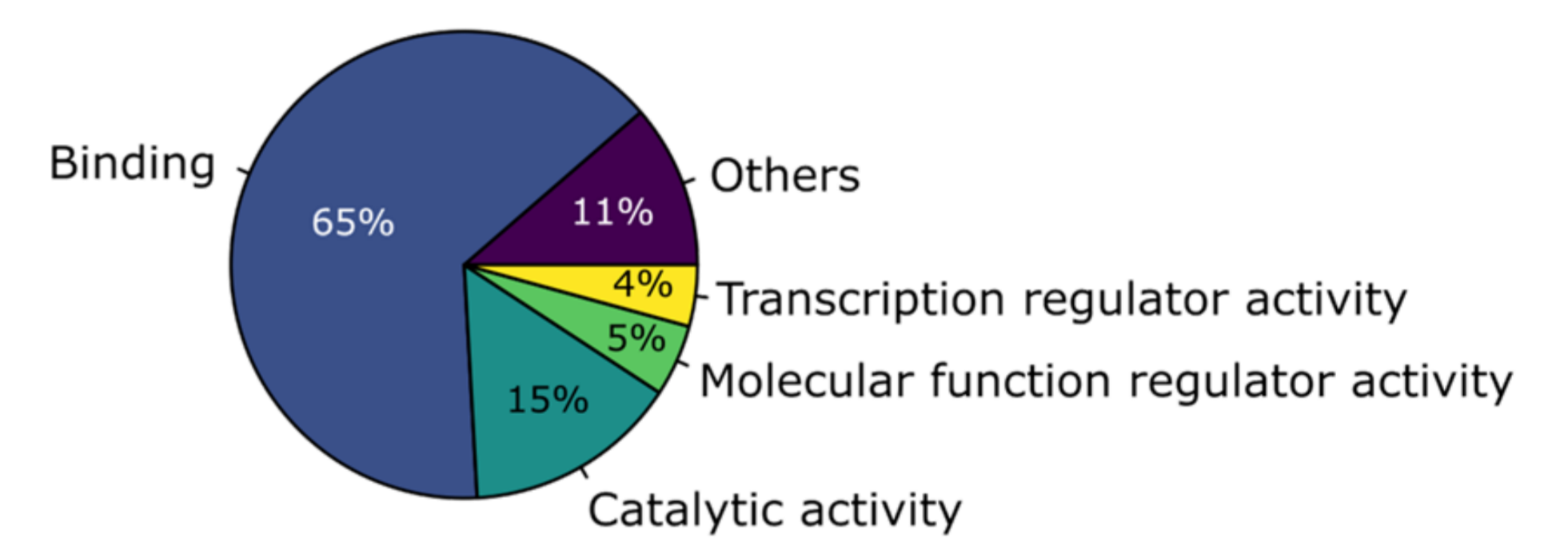
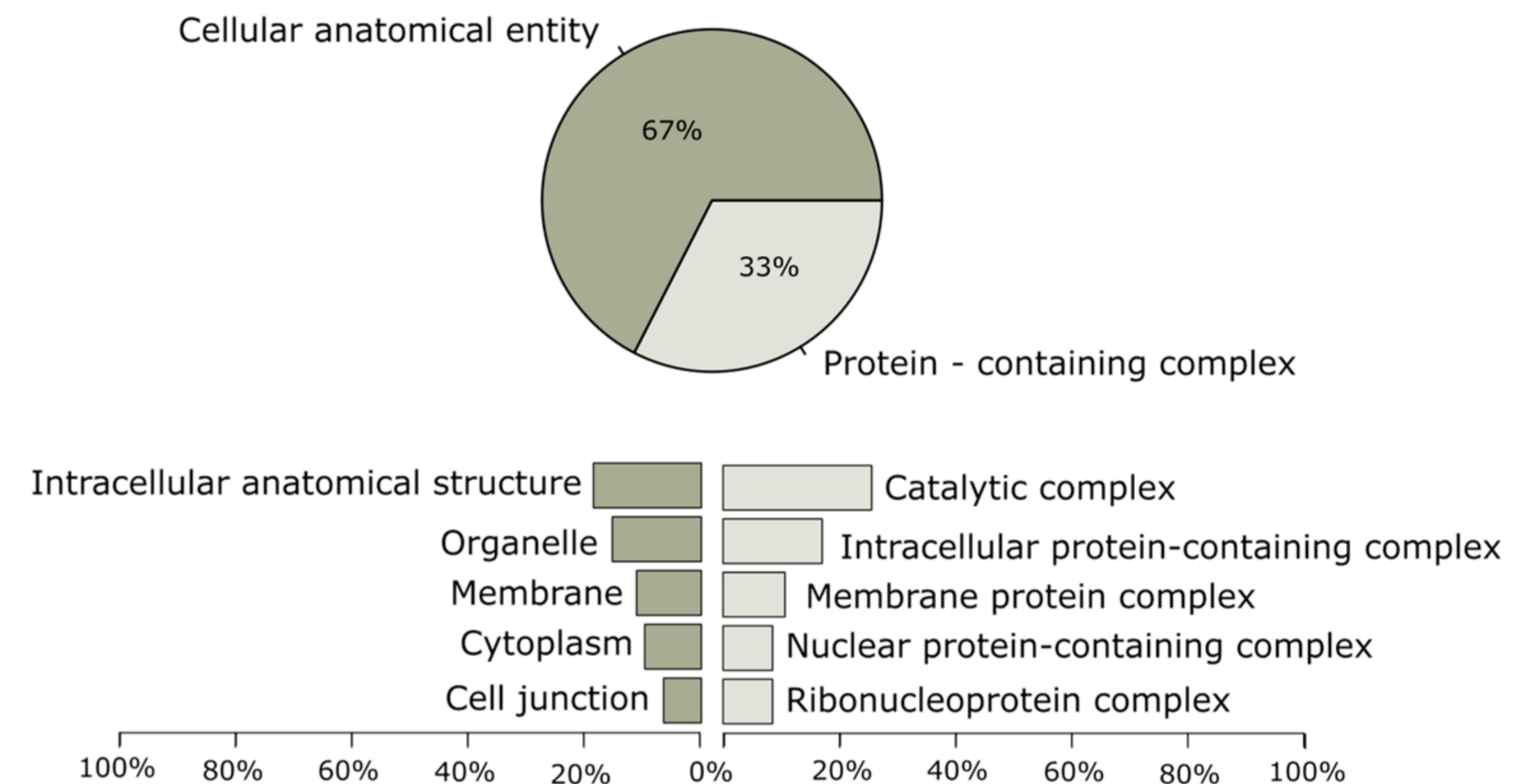


KEGG



RESULTS

CELLULAR COMPONENT



OSA affects miRNA expression

miRNAs applications in OSA:

Pros - insights into pathogenesis and contribution to disease | Disease biomarkers
Cons - miRNAs research in OSA is at an early stage