

Weekly Progress Report (Feb 10 – Feb 16, 2026)

<https://github.com/anisanazim/ACIS-iChatBio>

What Did You Do?

- Refactored the species-resolution pipeline to correctly separate extraction, validation, planning, and LSID resolution.
- Implemented conditional LSID resolution so species lookup only runs when the selected tool schema requires an LSID.
- Integrated Redis-backed caching for scientific names, vernacular names, and negative matches.

What Problems Are You Facing?

- Garbage or out-of-scope queries return empty tool plans without a user-friendly clarification message.

What New Capabilities Does Your Agent Have?

- **Intent-aware LSID resolution:** Resolver now runs *after* tool selection, not before, eliminating unnecessary species lookups.
- **Persistent species caching:** Redis now stores scientific names, vernacular names, and negative matches, reducing latency and API load.
- **Reduced wasted compute:** No more resolving species for facet-only or location-only queries.

What Will You Do Next Week?

- Add planner-driven clarification messages for ambiguous or multi-intent queries.
- Improve handling of garbage queries by returning structured clarification instead of empty tool plans.
- Expand test suite with realistic user queries across all query types (singleSpecies, facet, distribution, taxonomy, taxonomic_group).
- Continue optimizing Redis caching and negative-cache behavior.