

Weekly Progress Report (Jan 14 – Jan 19, 2026)

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

What Did You Do?

- Developed a JSON-based test framework to validate the agent's natural language understanding, tool selection, parameter extraction, and species identification using mocked workflows (no real API calls).

What Problems Are You Facing?

- The issue is that few of the species are not recognized as a valid species (marked as unresolved), the LLM's prompt interpretation getting confused between "what is" vs "what does it look like", leaning toward the lookup_species_info interpretation rather than the image request.

What New Capabilities Does Your Agent Have?

- The agent checks whether extracted parameters are incomplete or ambiguous and identifies when user clarification is required before proceeding.
- When key information (e.g., scientific species name) is missing, the agent clearly explains the issue and prompts the user for clarification rather than attempting invalid tool execution.

What Will You Do Next Week?

- Implement a structured warning system to flag ambiguous or low-confidence queries and inform users when results may be unreliable or incomplete.
- Add proactive assistance features including alternative suggestions, confidence-aware responses, and guidance on improving query phrasing for better results.