**Report (09/19 to 09/25)**

**Backend Configuration Troubleshooting (September 22nd):**  
I spent on troubleshooting and resolving critical configuration issues within the backend infrastructure. These issues were successfully identified and rectified, ensuring the backend system is now fully operational and stable

**Codebase Review and Project Planning (September 23rd):**. I conducted a thorough review of the current codebase. This involved identifying the last development touchpoints and outlining the immediate next steps and tasks required for the upcoming development cycles. This is to ensure a clear understanding of project status and priorities.

Concurrently, I initiated research into the ALA documentation, specifically focusing on its various API calls. The objective was to gain a comprehensive understanding of how these APIs can be leveraged and integrated effectively within the iChatBio project to meet its specific requirements. I also attended the weekly team call, participating in discussions and providing updates on progress.

**Professional Development: Pydantic for LLM Workflows (September 25th ):**  
A major focus this week has been on professional development through the "Pydantic for LLM workflow" course offered by deepLearning.ai. This course is proving invaluable for deepening my understanding of how to optimally implement Pydantic and Instructor libraries. I've explored several practical scenarios, including:

**Validating LLM Responses:** Learning techniques to ensure the output from Large Language Models conforms to predefined schemas and data types, significantly improving data reliability.

**Passing Pydantic Models in API Calls:** Understanding how to effectively use Pydantic models for structured data exchange in API communications, which enhances type safety and simplifies data parsing.

**Tool Calling:** Gaining insights into leveraging Pydantic for defining and utilizing "tools" or functions that LLMs can invoke, thereby expanding their capabilities and integration potential within complex workflows.