Subject: Medical Science Liaison (MSL) Notes - Critical Discussion on ImmunoViva

Date: January 12, 2025

Provider: Dr. Jason Williams

Title: Rheumatologist

Institution: JointCare Rheumatology Clinic

## **Summary of Key Discussion Points:**

### 1. Introduction:

• Introduced ImmunoViva as an immunomodulatory therapy designed to enhance immune responses.

• Dr. Williams expressed skepticism, questioning the necessity for a new immunomodulator in an already complex landscape.

#### 2. Provider's Current Patient Cases:

- Dr. Williams shared reservations about the practical impact of ImmunoViva in patients with rheumatic diseases.
- Discussed specific cases where traditional disease-modifying antirheumatic drugs (DMARDs) have shown established efficacy.

### 3. Efficacy and Clinical Data:

- Presented recent clinical data showcasing ImmunoViva's modulation of immune responses.
- Dr. Williams questioned the clinical significance of the reported reductions in autoimmune flare-ups and sought comparative data.

### 4. Safety Profile:

- Discussed the reported safety profile of ImmunoViva, with minimal reported immunosuppressive effects.
- Dr. Williams expressed concerns about the lack of long-term safety data and potential unforeseen immunological consequences.

### 5. Mechanism of Action:

- Explained ImmunoViva's mechanism, focusing on its selective modulation of immune checkpoints and cytokine balance.
- Dr. Williams questioned the necessity for such selective modulation and inquired about potential off-target effects.

### 6. Patient Adherence and Education:

• Discussed strategies for enhancing patient adherence through a subcutaneous injection every two weeks.

• Dr. Williams expressed skepticism about patient compliance, citing the frequency of injections as a potential barrier.

### 7. Emerging Research and Future Developments:

- Highlighted ongoing research on ImmunoViva's potential in other autoimmune conditions.
- Dr. Williams questioned the need for expanding research without addressing existing concerns about clinical relevance.

### 8. Competitive Landscape:

- Compared ImmunoViva to existing DMARDs and biologics, questioning the added benefits of its selective modulation.
- Discussed challenges of introducing a new drug without clear advantages over established treatments.

### 9. Access and Reimbursement:

- Provided updates on access and reimbursement programs for rheumatology clinics.
- Dr. Williams expressed reservations about the cost-effectiveness of ImmunoViva compared to existing treatments.

# 10. Action Items and Follow-Up:

- Dr. Williams did not express interest in further collaboration or follow-up.
- Agreed to remain open to future data but expressed skepticism about the drug's practical impact in rheumatology.

### 11. Closing Remarks:

- Acknowledged Dr. Williams's concerns and thanked him for his candid feedback.
- Expressed understanding and committed to addressing ongoing questions or concerns as the drug's development progresses.