Course Title: Creating Scientific Figures with Adobe Illustrator

Course Length: 1 Day (6 hours total: 9:00 am – 12:00 pm & 1:00 – 4:00 pm)

Max. registration: 20 (will be repeated if capacity exceeded).

Target Audience: Scientists, researchers, and students aiming to produce publication-ready scientific figures.

Items in green will be taught by Marta Marchini
Items in red will be taught by Juan Jovel

Course Outline

1. Welcome and Presentation of the Course (9:00 – 9:15 am)

2. Introduction to Adobe Illustrator for Science (9:00 – 9:20 am)

- Understanding the role of Illustrator in scientific visualization
- Examples of high-quality scientific figures

3. Basic Tools and Techniques (9:20 – 10:00 am)

- Overview of Adobe Illustrator's interface
- Drawing tools (shapes, lines, pen tool)
- Layers and grouping for effective figure organization
- Artboards: Using multiple artboards for different figure panels
- Practical Exercise: Create basic visual elements (e.g. simple illustrations)

4. Importing and Organizing Data Visualizations (10:00 – 10:30 am)

- Choosing effective color schemes for scientific clarity (e.g., colorblind-friendly palettes)
- Using gradients and transparency to add depth
- Best practices for consistency in color and line styles

- Practical Exercise: Apply color schemes to an imported figure

Coffee break (10:30 – 11:00 am)

5. Importing and Organizing Data Visualizations (11:00 – 11:45 am)

- Importing data graphics from tools like Excel, or R
- Cleaning up imported vector graphics
- Practical Exercise: Import a sample chart and edit it for clarity

Lunch break (11:45 – 12:45 pm)

6. Typography and Labels (12:45 am – 1:30 pm)

- Adding titles, axis labels, and annotations
- Choosing appropriate fonts for readability
- Creating consistent text styles across panels
- Using clipping masks and compound paths
- Adding icons or schematics to enhance storytelling
- Practical Exercise: Annotate an existing figure with labels and titles

7. Hands-On Project: Creating a Full Figure (1:30 – 2:45 pm)

- Participants create a complete scientific figure using provided data
- Individual guidance and troubleshooting
- Group feedback and discussion

Coffee break (2:45 – 3:15 pm)

8. Creating a Scientific Poster (3:15 - 3:30 pm)

- Setting up document size and orientations for standard poster formats
- Organizing information in a clear hierarchical layout (Title, Abstract, Methods, Results, etc.)
- Working with columns and text boxes for optimal readability
- Incorporating figures, tables, and graphics effectively
- Using consistent typography and color schemes for professional appearance
- Managing file size and resolution for large-format printing

9. Wrap-Up and Tips for Efficiency (3:30 – 4:00 pm)

- Illustrator shortcuts for faster workflows

- Common pitfalls and how to avoid them
- Resources for continued learning

Course Outcome: Participants will be able to create professional, publication-ready scientific figures using Adobe Illustrator, incorporating best practices in visualization and design.