

## User Story

Expression Team plans for the protein expression. Upon finalizing the plan, Expression Task (ET) is created. Planned schedule is then communicated via email.

## Pre-condition

- Request Set (RS) was submitted for a given TPP(s).

## How to plan Expression Task

- Find appropriate Request Set
  - Cambridge: <https://gdbio.pfizer.com:8092/gdbxt/requestSet/bepTrnsHome?protPrdctGrp=BMD-BEP+TRNS>
  - La Jolla: <https://gdbio.pfizer.com:8092/gdbxt/requestSet/bepTrnsHome?protPrdctGrp=BMD-LJ>
- In the given Request Set page, upon selecting "Plan Expressions" (Figure 1). Expression Task Form will load.
- By default, all RQs will be pre-selected. Uncheck any RQ, which requires a different expression strategy. Upon selecting appropriate Expression Profile value (Figure 2), several fields will pre-populate. Update if needed.

Figure 1

The screenshot shows the 'BEP Workflow' interface with three tabs: 'Planning', 'Expression Tasks', and 'Purification Tasks'. The 'Expression Tasks' tab is active. Below the tabs, there are buttons for 'Set Statuses for Selected', 'Group Selected Requests as CoTransaction', 'Un-Group Selected Requests from CoTransactions', 'Plan Expressions' (highlighted with a red box), and 'Plan Purification'. There is also a 'Schedule Purification Instruments' button.

Figure 2

The screenshot shows the 'Expression Task General Information' form. The 'Expression Profile' dropdown is highlighted with a red box and shows a list of options including 'BMD-BEP TRNS ExpCHO PEI', 'Large Scale Production', 'BMD-BEP TRNS ExpCHO expCHOlectin', 'BMD-BEP TRNS ExpCHO PEI', '200mL Production Study', '100L SUB', 'TPS Pilot PEI v1.0', 'TPS Scale up PEI v1.0', 'BMD-BEP TRNS Exp293 293fectin', 'Cell Line Development', 'BMD-BEP TRNS Exp293 PEI', 'E coli IPTG induction production', 'prokaryotic shake flask 15C', 'TPS Pilot PEI +PACE', 'TPS Pilot PEI + pSMEN4 empty vector', 'co-expression with SolPACE and LARGE', 'TPS Pilot PEI +PACE +LARGE', 'TPS Scale up PEI +Kf v1.0', 'TPS GNT1- Pilot', 'TPS Legacy 293 Freestyle', and 'TPS Scale up PEI +PACE +Vil K'. The 'Accessory Vector' dropdown is also highlighted with a red box and shows 'BMD-BEP TRNS ExpCHO expCHOlectin'.

- Select "Auto-Creation Transfection Tasks for Selected Requests" to create Expression Task(s). Upon successful submission, each selected RQ will have ET ID assigned in the Expression Task page.

- Repeat Steps 3 and 4 if a different strategy is planned for different RQ(s).

Figure 3

ET ID	RS ID	RQ ID	TPP ID	TPP Name	Vol	Vessel	Host Cell
ET-37650	RS-25580	RQ-121745	TPP-83873	GBT-CD63-0020	25	Shake Flask	Exp293

Buttons: Delete Selected Expression Tasks, Create/Update PEBs

- To notify the stakeholders with the planned schedule, return to the production page (Step 1) and select "Send Task Schedule Emails" located at the bottom of the page (Figure 4).

Figure 4

The screenshot shows the bottom of the production page with several buttons: 'Delete Selected Request Sets', 'Merge Selected Request Sets', 'Export Request Details', 'Order', 'Show Instrument Schedule', 'Send Task Schedule Emails' (highlighted with a red box), 'Send Completion Emails', and 'Send DT'.

- Select appropriate ET(s) or/and PT(s).
  - Select "Select Notifications for Selected" (Figure 5).

Figure 5

The screenshot shows the 'Send Notifications for Selected' interface. The 'Send Notifications for Selected' button is highlighted with a red box. Below it, there is a table with columns: Request Set, Project, Ppt Alias, Ppt Format, and Requestor. The table contains three rows: 'RS-25580 (1)', 'CD63', 'GBT-CD63-0020', 'IgG', and 'Seachol Oak'; 'RS-25554 (4)', 'Fn14 Monovalent Antibody Caxhia', 'GBT-FN14-3501', 'IgG', and 'Shafat Amar'; and 'RS-25554 (4)', 'Fn14 Monovalent Antibody Caxhia', 'GBT-FN14-3501', 'IgG', and 'Shafat Amar'.

- Email containing the schedule information will be sent to appropriate stakeholders (Figure 6).

Figure 6

The screenshot shows an email notification from GDBxT. The subject is 'Scheduled tasks for RS-25580 Project CD63'. The email body contains the following information: 'Requested by: Seachol Oak', 'Rationale: Tst', 'Amount Requested: 100.0 mg', and a table of scheduled tasks.

ET ID	TPP Name	Transfection Date	Harvest Date	Volume	Vectors	Expression External Vendor
ET-37650	GBT-CD63-0020	06/12/2024	06/17/2024	25 L	VEC-63838, VEC-60762	Not Applicable for Delivery

## WHAT'S NEXT

- Prior to the expression start date, enough plasmid batches must be available for the expression team. This will be done either by plasmid preps (by DNA Production Team) or accessing existing plasmid batch(es).