

**To apply for beam time for radiobiology experiments this form must be completed and returned to M. Scholz, Dep. GSI Biophysics, FAX 0049-6159-71-2106 not later than 4 weeks before the experiment.**

Dear User(s):

In order to schedule and organize your experiment at GSI you need to complete the following questionnaire. Missing information may result in denial of the run.

- Please note that regulations at GSI allow **only biosafety level S1** experiments.
- All persons entering the GSI labs must comply with **yearly updated GSI biosafety instructions** (certified by signature) in addition to the general GSI safety procedures. Activities with cytostatica require special safety instructions.
- All persons entering our labs require a **lab coat**, which have to be brought with to GSI.
- To avoid any cross-contaminations, anyone who is bringing a cell culture to GSI must have it **certified "mycoplasma free"** (by PCR or ELISA) no more than one month prior to the run. The testing must be done by a certified lab (e.g. DSMZ ([www.dsmz.de](http://www.dsmz.de))). In house tests are not accepted. Certificate for Mycoplasma-free conditions have to be stated in German or English, date stamped, and with readable signature.
- **Consumables** have to be **provided by the user**. Applications of hazardous chemicals have to be announced and material safety data sheet (**MSDS**) has to be **attached** if needed.
- Radiobiological experiments involving the use of **radioactive materials are not allowed** at GSI.
- For all material transported to and from GSI **European transportation regulations** have to be respected.

We wish to attend the following beam time at the **SIS** (only one beam request per form)

### 1. General Information

|   |  |
|---|--|
| 1.1 Principal investigator              |  |
| Proposal number                         |  |
| Preferred time (can not be guaranteed!) |  |
| We are not able to run on               |  |

### 1.2 Exposure

|  |  |              |                                 |
|--|--|--------------|---------------------------------|
| Ion species  |  | Energies     |                                 |
| Spread Out Bragg Peak (SOBP) - Width                     |  | SOBP - Depth |                                 |
| Number of samples  |  | Sample type* |                                 |
| * e.g. 25 cm <sup>2</sup> per cell culture flask etc.    |  |              |                                 |
| Dose or Fluence range                                    |  | to           | Gy or particles/cm <sup>2</sup> |
| Specify irradiation field size (if not standard samples) |  |              |                                 |

### 1.3 Experiment (Short description of the experiment)

### 1.4 Participants

Persons, who will participate in the experiment at GSI (Name and date of last general laboratory and biological safety instruction **at the GSI**)

|    | Name | Date |    | Name | Date |
|----|------|------|----|------|------|
| 1. |      |      | 5. |      |      |
| 2. |      |      | 6. |      |      |
| 3. |      |      | 7. |      |      |
| 4. |      |      | 8. |      |      |

## 2. GSI-Equipment needed

Please indicate the approximate time interval.

| 2.1 Laminar Flow Box                  |  |                |  |
|---------------------------------------|--|----------------|--|
| Number of laminar flow boxes          |  |                |  |
| Time interval (hours) before exposure |  | after exposure |  |

| 2.2 Incubator for Cell Culture   |  |                            |  |
|--|--|----------------------------|--|
| No. of trays* <sup>1</sup>   |  | Percentage CO <sub>2</sub> |  |
| * <sup>1</sup> one tray corresponds to an area of 45x45cm, height 13cm |  |                            |  |
| Time interval (days) before exposure                                   |  | after exposure             |  |

|  |  |  |  |
|--|--|--|--|
| <b>2.3 Refrigerator</b><br>(Time interval, indicate number of flasks, 500 ml bottles etc.) |  |  |  |
|--|--|--|--|

|                         |     |    |                |  |
|-------------------------|-----|----|----------------|--|
| <b>2.4 Cell Counter</b> | Yes | No | No. of samples |  |
|-------------------------|-----|----|----------------|--|

|                      |     |    |               |  |
|----------------------|-----|----|---------------|--|
| <b>2.5 Fume hood</b> | Yes | No | Time interval |  |
|----------------------|-----|----|---------------|--|

### 3. Chemicals, Gases and other Equipment supplied by the Investigator

We will use hazardous chemicals

Yes

No

If yes, please fill the following table and enclose material safety data sheet (MSDS) for each hazardous substance, name the chemicals and list according to the hazard classification:

| 3.1 Chemicals | X <sub>n</sub> | X <sub>i</sub> | T     | T+         | C         | F/F <sup>+</sup>           | O         | E         | MSD-Sheet |                     |
|---------------|----------------|----------------|-------|------------|-----------|----------------------------|-----------|-----------|-----------|---------------------|
|               | Harmful        | Irritant       | Toxic | Very Toxic | Corrosive | Highly/Extremely Flammable | Oxidizing | Explosive | enclosed  | already handed over |
| 1.            |                |                |       |            |           |                            |           |           |           |                     |
| 2.            |                |                |       |            |           |                            |           |           |           |                     |
| 3.            |                |                |       |            |           |                            |           |           |           |                     |
| 4.            |                |                |       |            |           |                            |           |           |           |                     |

We will bring equipment/gases

Yes

No

If yes, please list them below. For gases and possibly dangerous equipment, instructions have to be brought specifying possible hazard or danger, personal protective clothing, and safety measurements in case of accidents and fire.

|  |  |
|--|--|
| <b>3.2 Technical equipment</b><br>(centrifuges or similar) |  |
| <b>3.3 Gases</b>   |  |

#### 4. Biological Objects (Specification of the biological objects used for the experiment)

Please use a separate form for every species! All items of the questionnaire must be completed!

|                         |  |     |    |
|-------------------------|--|-----|----|
| <b>4.1 Nucleic acid</b> |  | Yes | No |
|-------------------------|--|-----|----|

|      |  |               |  |
|------|--|---------------|--|
| Name |  | Specification |  |
|------|--|---------------|--|

|                     |  |     |    |
|---------------------|--|-----|----|
| <b>4.2 Bacteria</b> |  | Yes | No |
|---------------------|--|-----|----|

|      |  |                      |                   |    |
|------|--|----------------------|-------------------|----|
| Name |  | Recombinant organism | Yes* <sup>2</sup> | No |
|------|--|----------------------|-------------------|----|

\*<sup>2</sup> Please ask for and fill in the separate form for genetically modified organism.

|                                   |  |     |    |
|-----------------------------------|--|-----|----|
| <b>4.3 Human peripheral blood</b> |  | Yes | No |
|-----------------------------------|--|-----|----|

|       |                       |         |
|-------|-----------------------|---------|
| Donor | Healthy* <sup>3</sup> | Patient |
|-------|-----------------------|---------|

\*<sup>3</sup> You have to enclose a certificate from an independent laboratory written in German or English with readable signature and date proving the serological absence of HIV, HCV and HBV.

|                                    |  |                      |  |
|------------------------------------|--|----------------------|--|
| Confirmed absence of HIV, HBV, HCV |  | Certificate enclosed |  |
|------------------------------------|--|----------------------|--|

|  |  |     |    |
|--|--|-----|----|
| <b>4.4 Established and commercially available cell line*<sup>4</sup></b> |  | Yes | No |
|--|--|-----|----|

|                |  |
|----------------|--|
| Catalogue name |  |
|----------------|--|

|  |                                |
|--|--------------------------------|
| Culture collection information sheet / Relevant publications | enclosed<br>already handed out |
|--|--------------------------------|

|                 |           |        |                                    |
|-----------------|-----------|--------|------------------------------------|
| Characteristics | Wild type | Mutant | Recombinant organism* <sup>2</sup> |
|-----------------|-----------|--------|------------------------------------|

|                  |        |        |
|------------------|--------|--------|
| Tissue of origin | Normal | Tumour |
|------------------|--------|--------|

\*<sup>2</sup> Please ask for and fill in the separate form for genetically modified organism. Please note that experiments with virus-transformed cells are not permitted.

\*<sup>4</sup> The absence of mycoplasma in cell cultures has to be proven by an adequate test by an independent lab (Certificate written in German or English with readable date and signature).

|                                 |  |                      |  |
|---------------------------------|--|----------------------|--|
| Confirmed absence of mycoplasma |  | Certificate enclosed |  |
|---------------------------------|--|----------------------|--|

