

copy. The simulation algorithms have rigid infrastructure and a web based interface for providing a user-friendly

the *In Silico* Oncology and Grid Added Value

ologies is imperative for *In Silico* reasons:

quired computational resources when discretization of the space-time (4D) grid

ed data (imaging, histopathologic, processing requirements patients

ageable GBM response to radiotherapy been successfully ported to the grid is based on the clinical, imaging, lar data of the patient and numerous mechanisms are incorporated and nician delineates the tumour and its e available imaging data by using a prototype system of quantizing cell ch geometrical cell of a discretizing area of interest lies at the heart of the h.

to:

adiation oncology: combining novel simulation e techniques. *IEEE Proceedings: Special Issue on ges 90 (2002) 1764-1777,*

nsional *In Vivo* Model of Tumour Response to Considering Radiosensitivity, Genetic Profile and 4) 1-20.

gy to be efficiently transferred to the tain aspects were addressed regarding ramming model:

atic simulation submission and

lt aggregation

to the user (e.g. provide an optimal

The portal has several adva

- ✓ Usability
- ✓ Efficiency
- ✓ Operating System inc
- ✓ Application extension

The web version of the s accessed from an increa instantly enables access resources of grid infra processes.

4. Indicative

The following simulations the resources provided by Organization (SEE-VO) us therapeutic scheme has be sweep simulation.

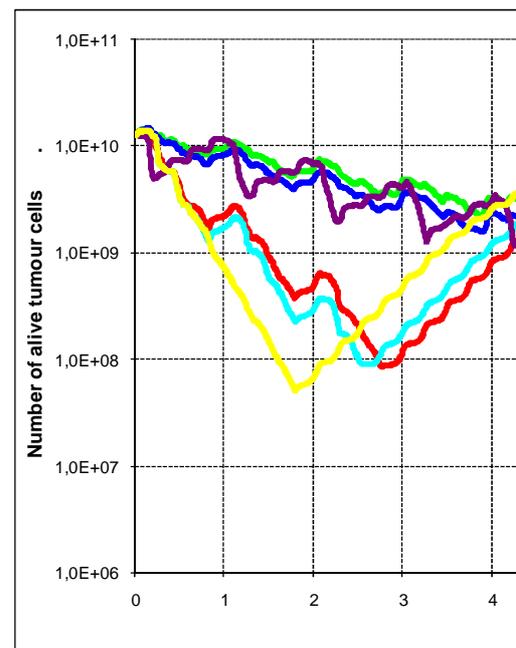


Fig 2. Indicative simulation merits of dose fractionation radiation the

The accelerated fraction hyperfractionation schemes terms of tumour cell kill. specific instants compared their duration is smaller and "all" tumour cells, tumour other extreme hypofraction