Oncoscan project I

Identification of arm-level alterations

*Document history*

V1 18.12.2018 Document created [YCHR]

**Workpackage 1**

Literature review of the definition of “arm-level” and current practices.

* Percentage of arm to be considered as “arm-level”?
* Contiguity required?
* Use of smoothing function?

**Deliverable:** precise definition of an arm-level alteration

**Workpackage 2**

R software that outputs two txt files given a ChAS file: arm-level alterations and focal alterations

* Alterations are classified as “gain” (1-2 copies extra), amplification (5 and more), LOH (2 copies but loss of heterozygosity), loss (1 copy loss) or homozygous loss (2 copies lost)
* Evaluation of the effect induced by a sliding window of different sizes
* Validation of the results using 20 oncoscan reports with arm-level alterations. The ground truth is the alterations reported in the document (these reports have to be reviewed by Sophie and Yann after completion of step 1)

**Deliverables:** Software specifications, R software, tests and validation results

**Workpackage 3**

Creation of a shiny interface for the R script (using the same repo as the cross list utility).

**Deliverable:** R software, tests and validation results