

Guided Annotation: daily workflow

The Guided Annotation tool is designed to support the busy workdays in the IVF laboratory. This is accomplished by guiding you from one variable to the next in an annotation strategy and by automatically forwarding the embryo images to estimated timings of events. In this way the tool supports consistent and efficient annotations. Your own validation completes the workflow.

Guided Annotation in synergy with KIDScore models optimally supports your consistent embryo assessment process.

Main benefits

The Guided Annotation tool offers two main benefits: enhanced speed of annotation and improved consistency of the embryo assessment process.

These benefits are accomplished by a semi-automated annotation flow based on a user defined strategy (the annotation strategy).

Annotate page – performing the daily routine
The Guided Annotation tool presents a redefined Annotate
page.

This *Annotate page* is activated by clicking the *Annotate* button on the software navigation panel. The page is divided into two parts as illustrated in Figure 1.

On the left-hand side, the *Annotate page* displays an image of the selected embryo, placed above the division and blastomere activity charts.

The right-hand side of the page presents functions associated with the annotation process: List of identified embryos with associated decisions and annotation progress in percent (A), current annotation strategy and values (B), buttons and short-cut indications for performing annotations (C) and strategy drop-down (D).

The tool provides an option for disabling the automatic estimation of events (E). Automatic estimation will be reenabled when continuing to next well.



Figure 1: The Annotate page for performing annotations

TECHNOTE



Clinical workflow

The first variable in most strategies will be an assessment of whether or not two pronuclei are seen in the embryo (this is the "PN" variable).

Vitrolife recommends to check the PN status in all wells on the day after the insemination. This is most easily accomplished by indicating that you want to "Step by Well" on the *Annotate* page. In a clinical setting, all embryos that are not 2PN can be marked for avoidance:

When the initial PN assessment has been completed, you may find it useful to "Step by Variable". With this setting the tool guides you through the annotation of all remaining variables for one embryo at a time before automatically continuing to the next non-avoided embryo.

The workflow specified above will support a consistent and efficient clinical workflow.

Final evaluation of the embryos

The division chart offers an initial indication of how the embryo development progresses.

To have an initial side-by-side comparison of the embryos, highlight a number of wells on the Compare & Select page and mark the "Side-by-Side View" choice under "Compare & Select View" at the buttom of the page. This will bring you to a side-by-side view of the highlighted wells including a list of comments and four user selected information details for each embryo (Figure 3).

Guided Annotation: synergy with KIDScore models KIDScore models are designed to support the evaluation of embryos. Theses models require only few variables to annotate – these are the predefined annotation strategies of the Guided Annotation tool.

Guided Annotation and KIDScore models can be used in synergy with the benefit of achieving high level of consistency in your clinics embryo assessment process.

| Well | Dec. | Progress |
|------|------|----------|
| A-1 | | 100 % |
| A-2 | | 100 % |
| A-3 | × | - |
| A-4 | | 28 % |
| A-5 | | 14 % |
| A-6 | | 14 % |
| A-7 | | 14 % |
| A-8 | | 14 % |

Figure 2: Guided Annotation is designed to support a simplified annotation workflow and provides a continuous overview of the annotation progress.

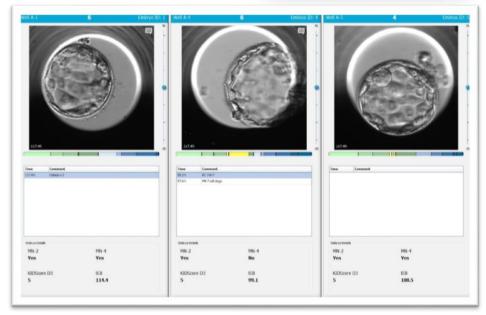


Figure 3: Side-by-side view of multiple wells showing lists of comments and user defined embryo details. This view is accessed through the Compare&Select function.