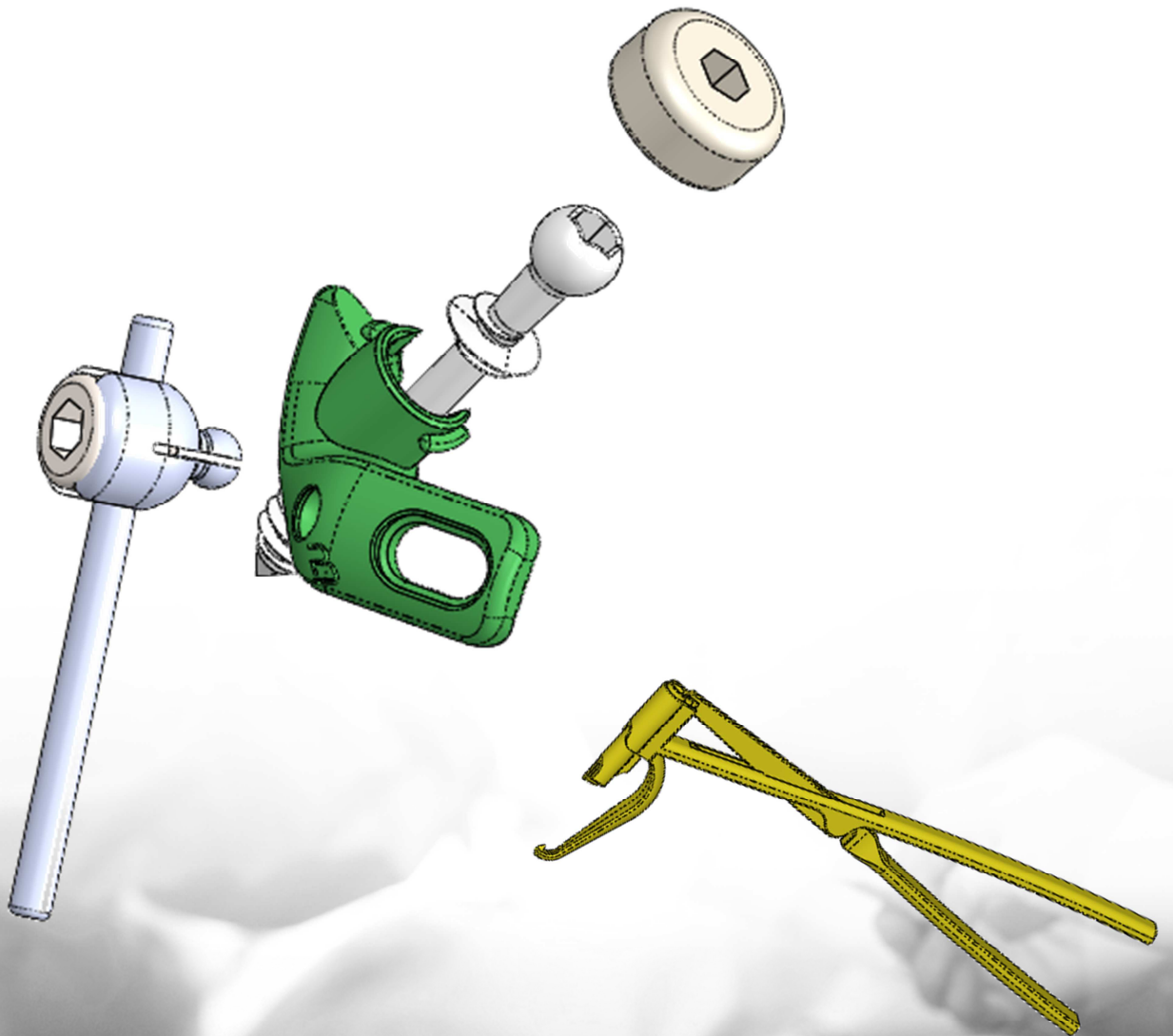


## TRANSLAMINAR FACET FIXATION SYSTEM [TFFS]

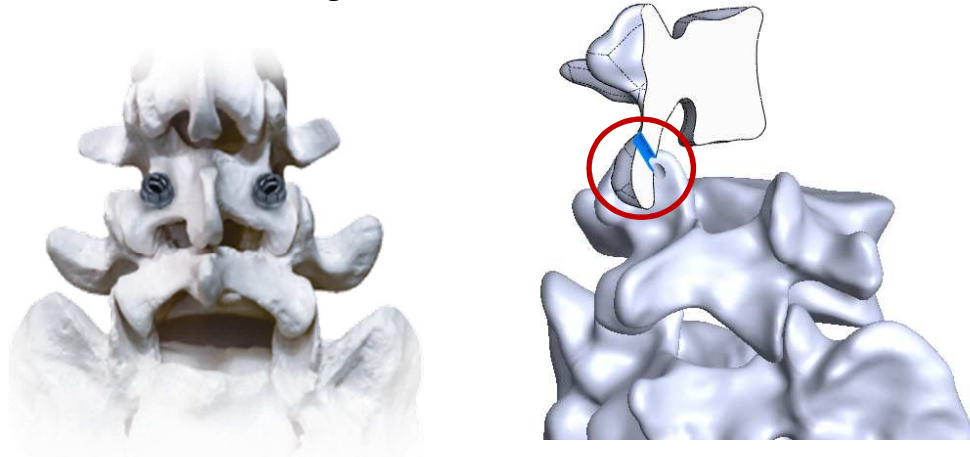
**A strong fixation by  
a midline mini-invasive approach  
that deserves to be better known.**



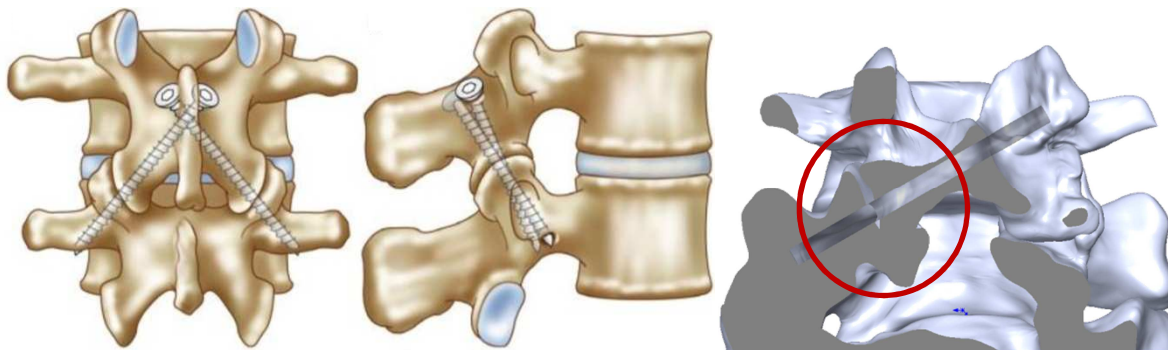
## 1 FACET SCREW FIXATION & MARGERL technique

Facet screws fixations are well known in the spinal surgical field, as a technique related to the BOUCHER technique named transfacet fixation.

This technique, relatively easy to perform, is often limited to the quality of the bone anchorage, as the chosen direction does not meet the strongest bone available in this anatomical region.



**Translaminar facet screws follow a radically different direction**, starting from the contralateral side, the goal is **to literally grab the strongest cortical bone** through the lamina to the massive bone at the base of the inferior facet.



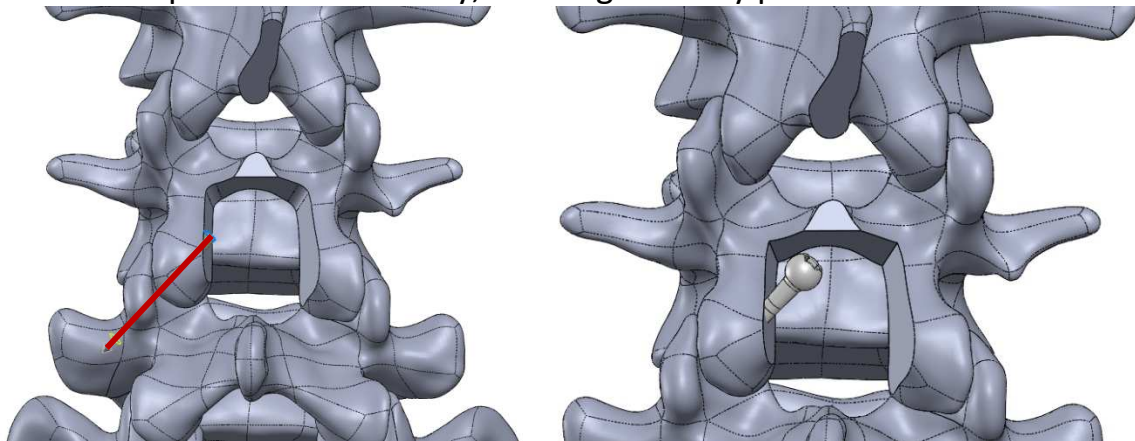
This technique has been described by MARGERL, but its relative difficulty to perform such a direction through the lamina avoided so far its expansion

## 2 EASY TARGET & MIDLINE MINI-INVASIVE APPROACH

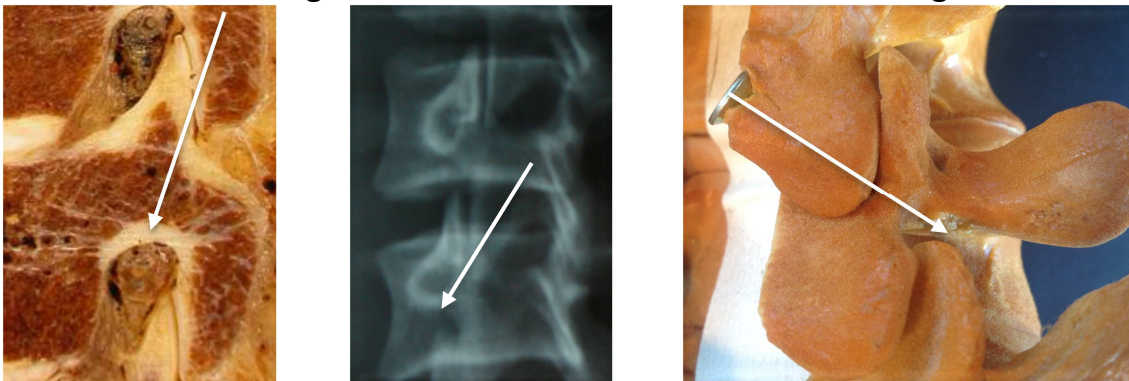
Convinced by the quality of the bone fixation of the MAGERL technique, Pr Jacques SENEGAS imagined an adaptation avoiding the cumbersome path onto the lamina.

### DIRECTION EASY TO TARGET

Thanks to a partial laminectomy, defining an entry point becomes easier.

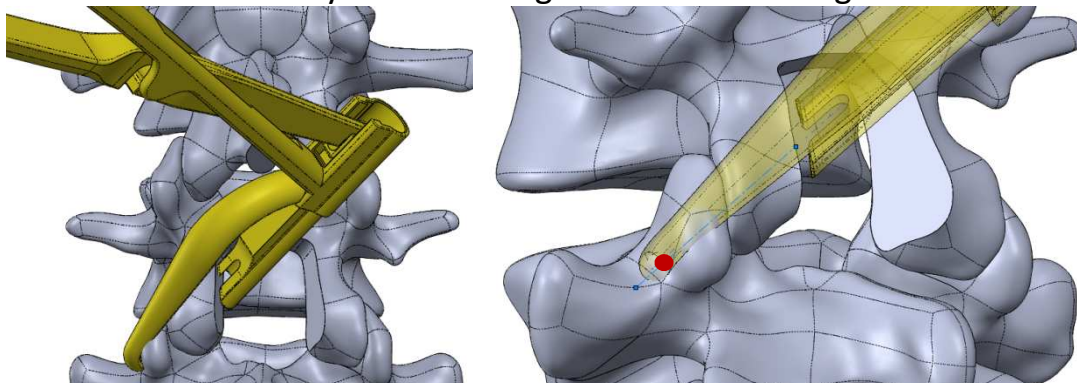


Visualisation of the targeted direction in anatomical and radiological views:



But still the determination of the suitable direction in a repeatable and easy manner is not yet obvious.

This is the reason why a dedicated guide has been designed.



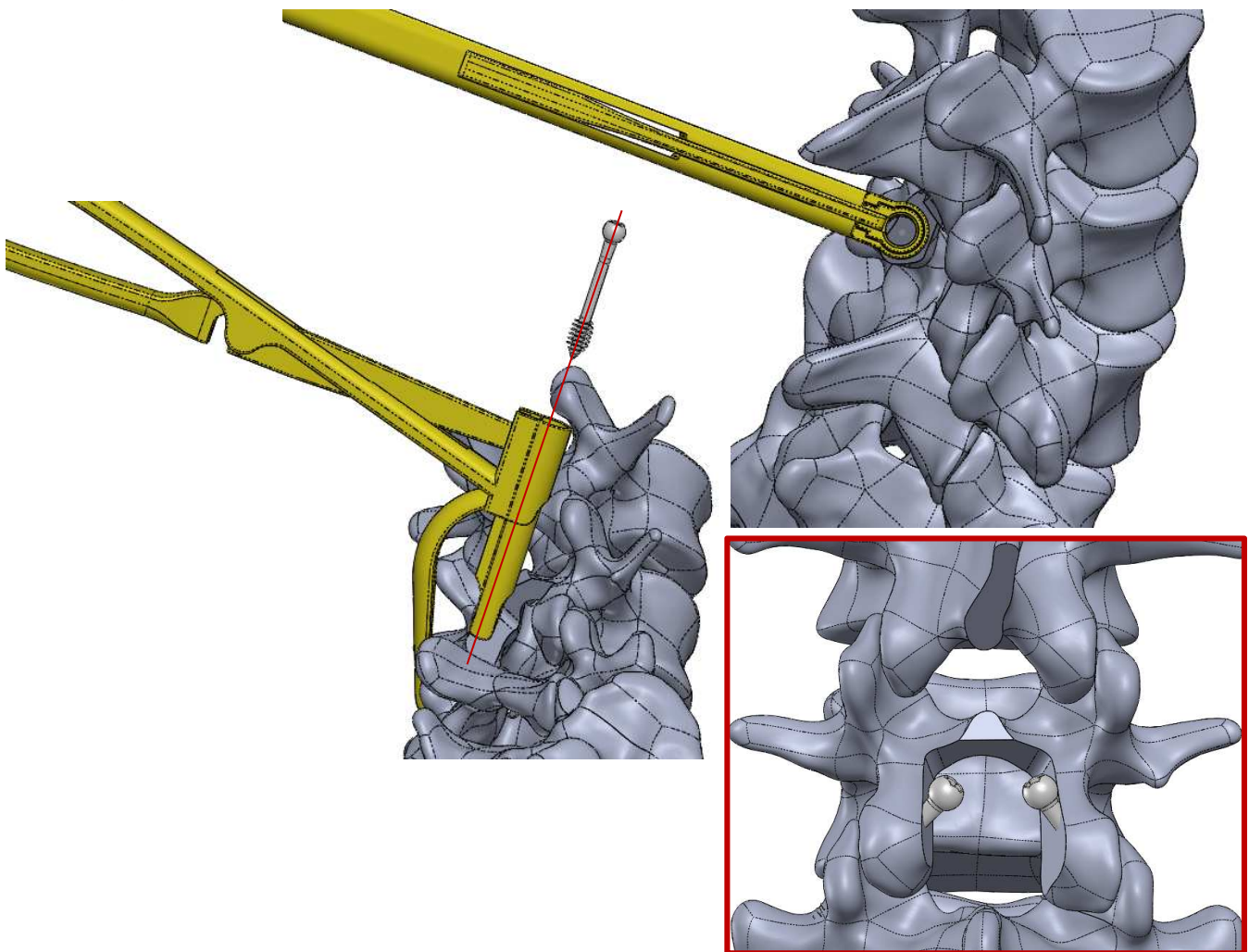


Targeting the deepest surface under the lower facet, on top of the transverse laminar, will provide a repeatable end point...

thus a repeatable direction,  
in order to place facet screw in few minutes following the MAGERL technique.

### MIDLINE MINI-INVASIVE APPROACH

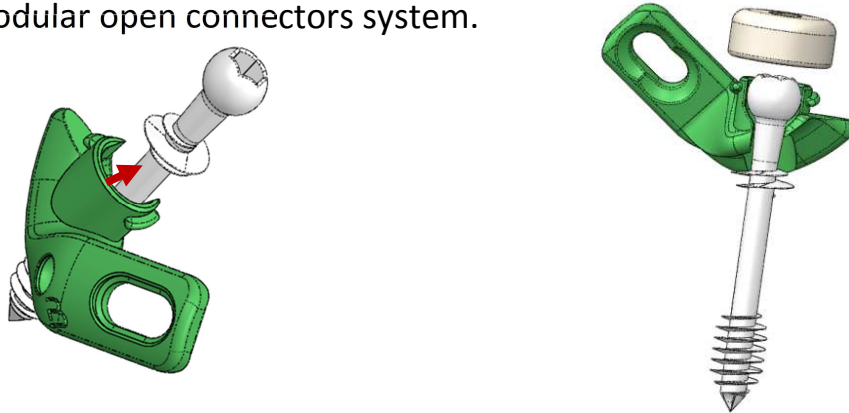
Thanks to the really small guide [External biggest diameter 11.5mm], a quick and safe introduction of the facet screw can be performed in full respect of the predetermined direction.



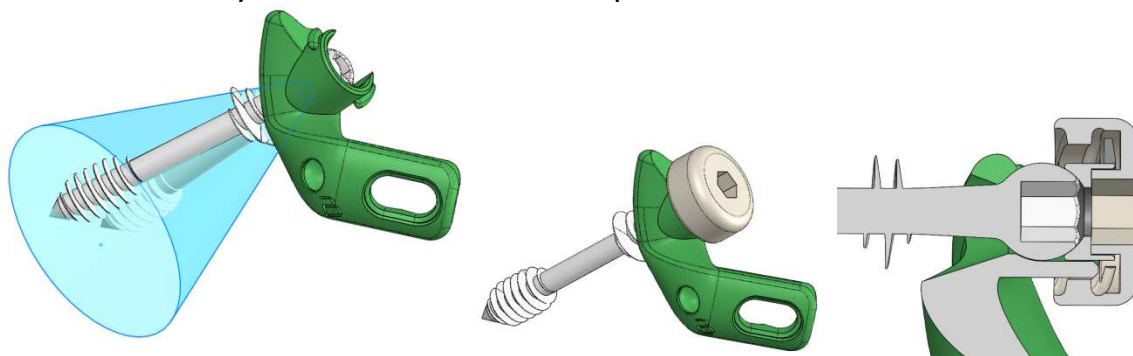
A small skin midline incision will allow full access to both sides for placement of the facet screws, in an elegant mini-invasive approach respecting the lateral muscle insertions.

### 3 VERSATILITY & OPTIMIZED CONSTRUCT STABILITY

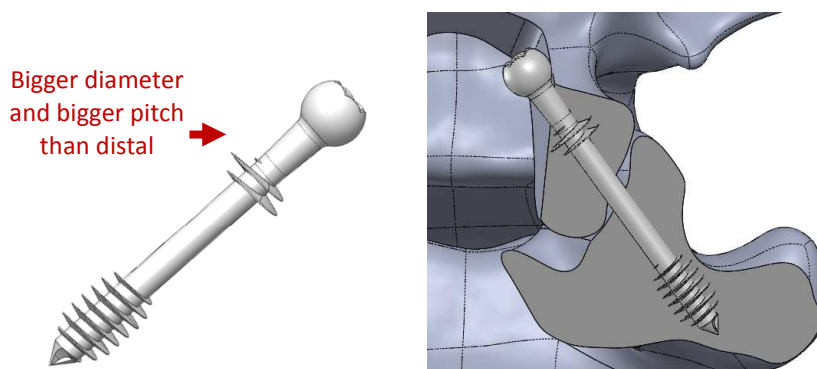
The bilateral facet screws, no fully introduced at this stage, can now be linked thanks to a modular open connectors system.



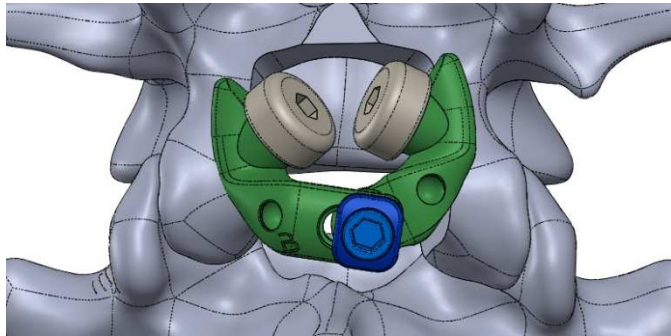
A **40° multiaxial mobility** is offered between the screw head and the connector, allowing to cope with all possible positions of the facet screw. The multiaxiality is later locked with a cap.



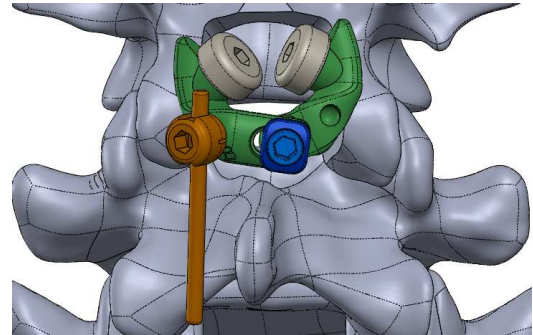
The facet screws, thanks to the presence of **two threads** with slightly different pitches, gently compress both opposite massifs of the facet, **optimizing stability and bone fusion**.



Finally, both side of the connector are connected, building a **strong construct** by linkage of both facet screws.



**Multi-level** construct can also be build thanks to longitudinal multi-axial rod-tulip fixation.



#### 4 More information

For more information about this technique, please liaise with Bpath ([TFFS@bpath.eu](mailto:TFFS@bpath.eu)).

This concept and the related surgical technique are protected by an international patent currently referenced WO2017036709.

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**CAUTION** : Neither the devices nor the technique are currently regulatory cleared.