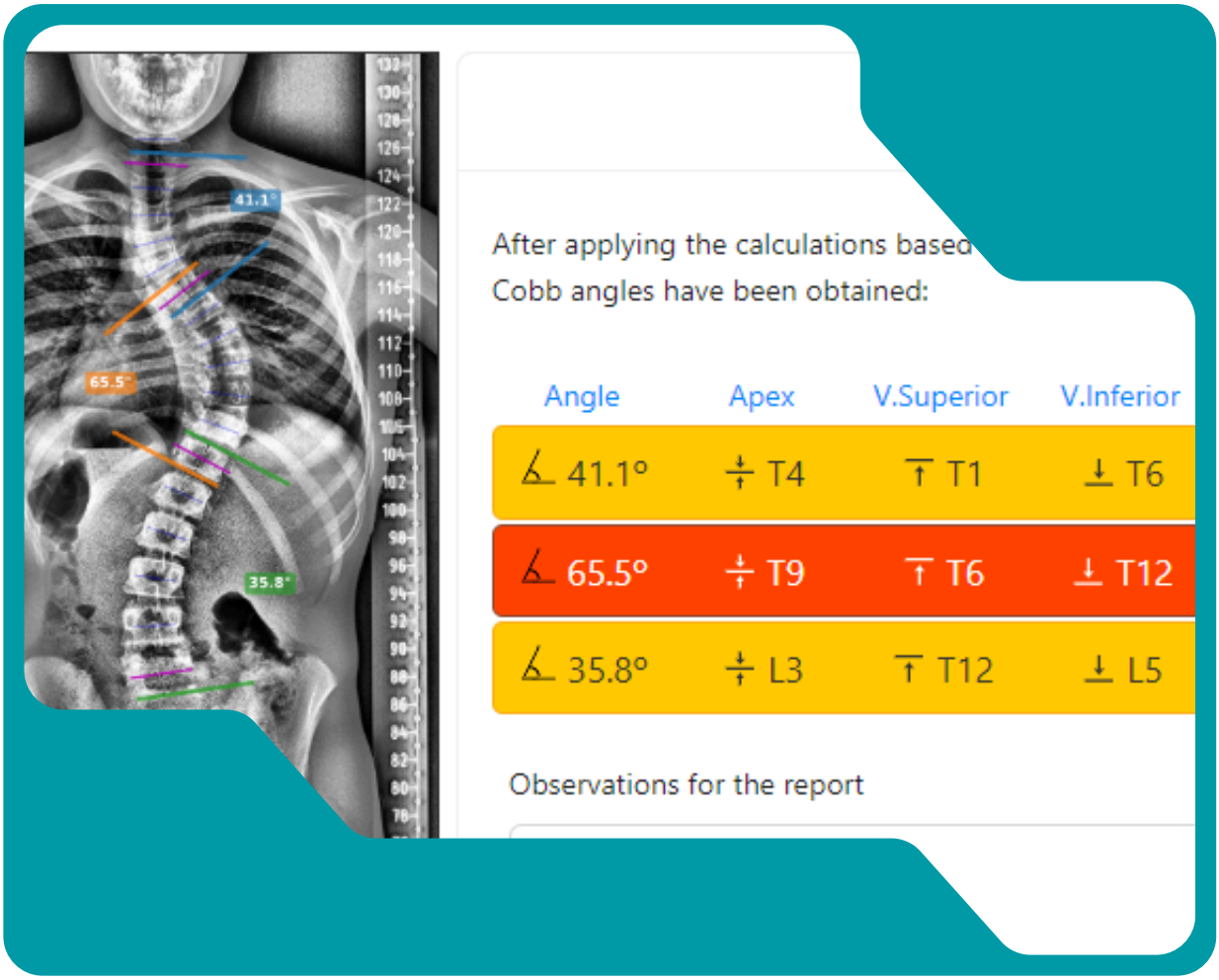
EPIDISEASE
Unlocking Tomorrow's Health, Today



SCOLI VIEW

Automated Spinal Curve Measurement from Full-Spine X-rays

Fast. Standardized. Fully automated.
Clinically validated.

WHAT DOES SCOLIVIEW ALLOW YOU TO DO?

Automatically estimate Cobb angles, apex, and end vertebrae from full-spine X-rays using a secure, web-based application designed for real-world clinical practice.

DRA. TERESA BAS HERMIDA

Clinical Head of the Spine Unit at La Fe University and Polytechnic Hospital in Valencia (Spain)

“ScoliVIEW is a tool that puts the clinical precision to measure scoliosis curves within everyone's reach, allowing robust monitorisation of curve progression wioth confidence. “

“The Cobb angle should not be an impediment to treating patients with scoliosis. ScoliVIEW democratises the measrement of the Cobb angle, allowing expert level meaurement, regardless of experience.“

Why clinicians love ScoliVIEW

- **Instant results:** Upload your X-ray and get Cobb angles for apex, and end vertebrae in seconds.
- **Expert-level accuracy:** Clinically validated with high agreement with manual measurements made by experts.
- **Eliminate subjectivity**: Fully automated workflow reduces variability and outliers.
- **Web-based convenience:** No installation, no PACS integration, no technical support needed.
- **Easy to adopt:** Intuitive interface with a fast learning curve for busy clinicians.
- **GDPR compliant:** No personal data is stored. The application runs on Microsoft Azure servers, ensuring best-in-class regulatory compliance.

Proven in clinical practice

- Validated on 484 full-spine radiographs across 4 tertiary hospitals
- Mean Absolute Error (MAE): 3.01° | Intraclass Correlation (ICC): 0.97
- Stable performance across all curve severities

Arrange a free trial

info@epidisease.com

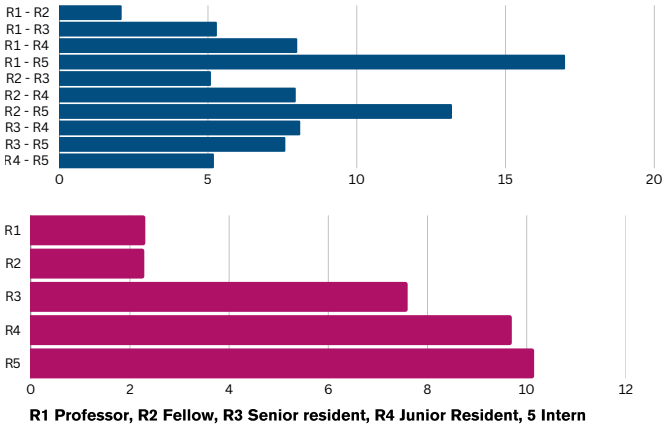
The clinical challenge

Manual Cobb angle measurement is time-consuming and variable.

Despite being the gold standard for scoliosis assessment, Cobb angle measurement is still largely performed manually (or semi-automatically), and requires a users intervention resulting in:

- Time-consuming workflows
- Inter- and intra-observer variability in manual measurements, with mean absolute errors of 2–4° and occasional large deviations reported, even among experienced clinicians
- Dependence on specialized PACS tools
- Limited scalability in routine practice

Small measurement errors can significantly impact clinical decisions, follow-up, and treatment planning.



Cobb angle measurement inter-user variability in function of Cobb angle measurement experience

The difference in experience in measuring Cobb angles correlates with positively with the difference in the values of the Cobb angles measured.

R1 Professor, R2 Fellow, R3 Senior resident, R4 Junior Resident, 5 Intern

Cobb angle measurement intra-user variability in function of Cobb angle measurement experience

Physicians with more experience in measuring Cobb angles show a lower variability when measuiring the same curve six weeks later.

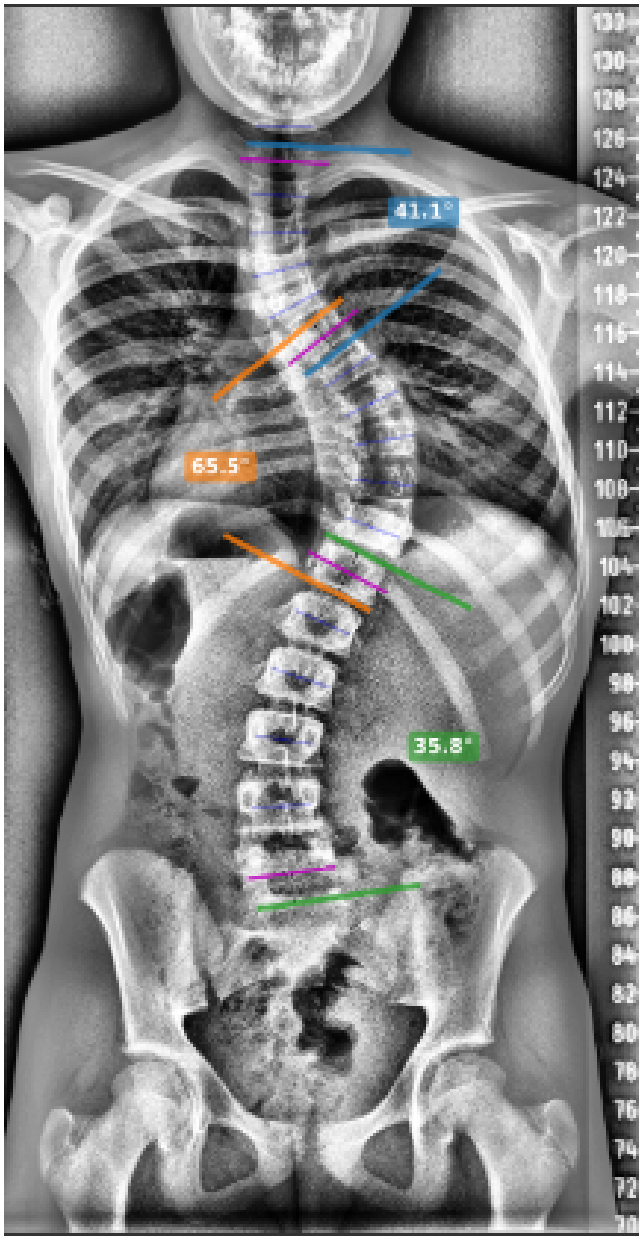
Source: Baloch, S.R., Hashmi, I.A., Rafi, M.S., Mazar, S. Intra-and Inter-Observer Accuracy of Cobb's Angle in Scoliosis; Six Weeks Apart. J. Pak. Orthop. Assoc. 2024; Vol. 36 (01):29-35.

Our solution

ScoliVIEW is a web-based platform powered by SPARC (SPinal Autonomous Radiological Cobb-assessment)), an AI-driven system designed to automatically and reliably calculate Cobb angles from full AP/PA spine radiographs — with expert-level accuracy and no manual input required.

The system uses deep learning–based image segmentation to identify the spine and individual vertebrae from the full radiograph. Spinal curves are automatically segmented, and Cobb angles are computed using vertebral orientation - completely without user intervention.

This autonomous workflow eliminates subjectivity and reduces measurement variability.



How it works

1

Log-In using your unique cedentials

2

Upload or drag and drop a full-spine X-ray image.

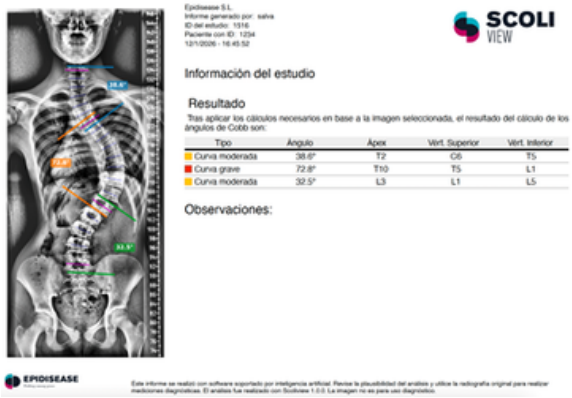
3

The software automatically:

- Identifies the spinal axis
- Localizes vertebral centers — no manual selection needed
- Detects and segments spinal curves
- Estimates Cobb angles, apex, and end vertebrae

4

Results are immediately available and can be copied into the medical record or exported as a PDF report.



No installation. No PACS integration. No manual input required.

Peer-reviewed clinical validation

ScoliVIEW has been validated in a multicenter study published in *The Spine Journal* (Elsevier), a leading peer-reviewed medical journal dedicated to spine research and clinical care, and the official journal of the North American Spine Society (NASS), which has a Journal Impact Factor of 4.7, ranking in the 1st decile in Orthopedic jornals:

https://doi.org/10.1016/j.spinee.2026.01.010

DRA. IRENE MIALDEA LÓPEZ
Pediatra, Centro de Salud de LÉliana (Valencia)

"ScolVIEW allows for simple, quick and accurate interpretation of spinal X-rays in cases of suspected scoliosis.

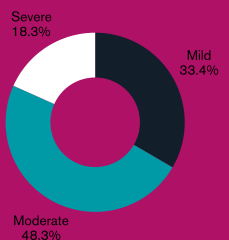
It is extremely useful for paediatricians and primary care physicians, regardless of their clinical experience with these patients."

The system was validated using a rigorously curated dataset based on expert consensus, with a structured double-review process involving three experienced spine clinicians per case, including:

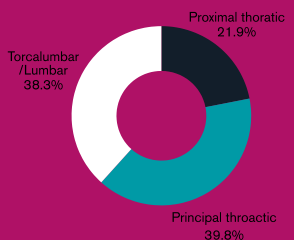
- **484 full-spine AP/PA radiographs**
- **Data collected from four tertiary referral hospitals**

Cobb cohorts

Cobb severity



Curve localisation



Key performance metrics

- Performance within clinically acceptable limits
- Reduced extreme measurement outliers compared to initial human measurements
- In comparison with initial independent manual measurements, the system identified a higher number of spinal curves, which were subsequently confirmed by expert consensus.

Automated measurements achieved expert-level agreement

ICC = 0.97
MAE = 3.01°

ICC: Intra-Class Correlation
MAE : Mean Arverage Error

With a narrower error range ompared to initial manual measurements

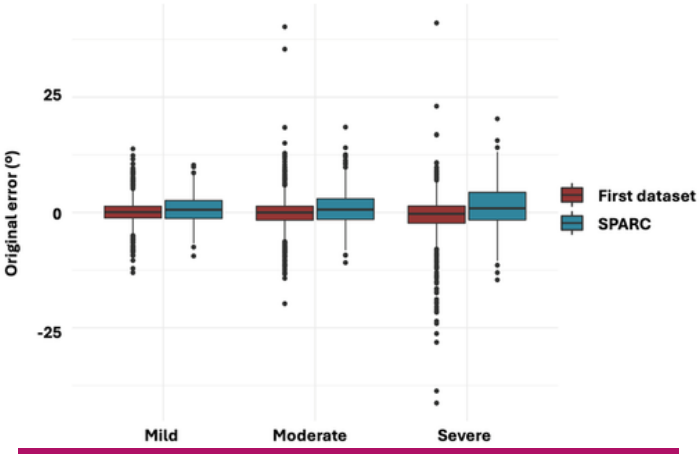
–14.6° to +20.3°

vs

–41.3° to +40.7°

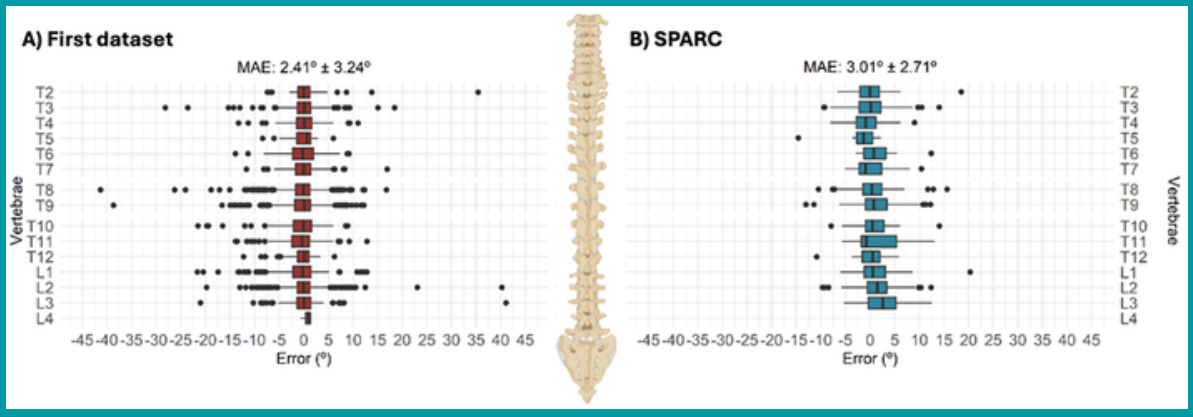
Consistent accuracy across Curve Severity and Location

Severity of scoliosis presentation



SPARC demonstrated stable and clinically acceptable accuracy across the full spectrum of scoliosis presentations, independent of curve severity (Mild: 10°–25°; Moderate: 25°–44°; Severe curves: ≥45°), and curve location.

And anatomical location of spinal curve



Clinician-validated usability

ScoliVIEW, the web-based application integrating the SPARC AI engine, is designed to be intuitive, fast, and easy to adopt in clinical workflows.

What clinicans think of ScoliVIEW

System easy to use

Reported low complexity

Believe most clinicians would learn it quickly

Would use the system frequently

Felt confident during use

Required technical assistance to operate the system

Clinicians achieve high agreement with expert manual measurements while benefiting from an interface that is simple, intuitive, and ready for everyday clinical use.

Who is it for?

- Rehabilitation units
- Orthopedic and spine clinics
- Pediatric departments
- Private practices
- Hospitals without dedicated scoliosis software
- Radiografic image service providers

Intended Use

This software is intended to assist trained healthcare professionals in the assessment of spinal curvature by automatically estimating Cobb angles, apex, and end vertebrae from full-spine X-ray images.

It does not replace clinical judgment.

Key benefits

- Save time per examination
- Reduce measurement variability
- Web-based and IT-independent
- Fully automated workflow
- Fast learning curve
- Fully GDPR compliant

About Us

EPIDISEASE

Unlocking Tomorrow´s Health, Today

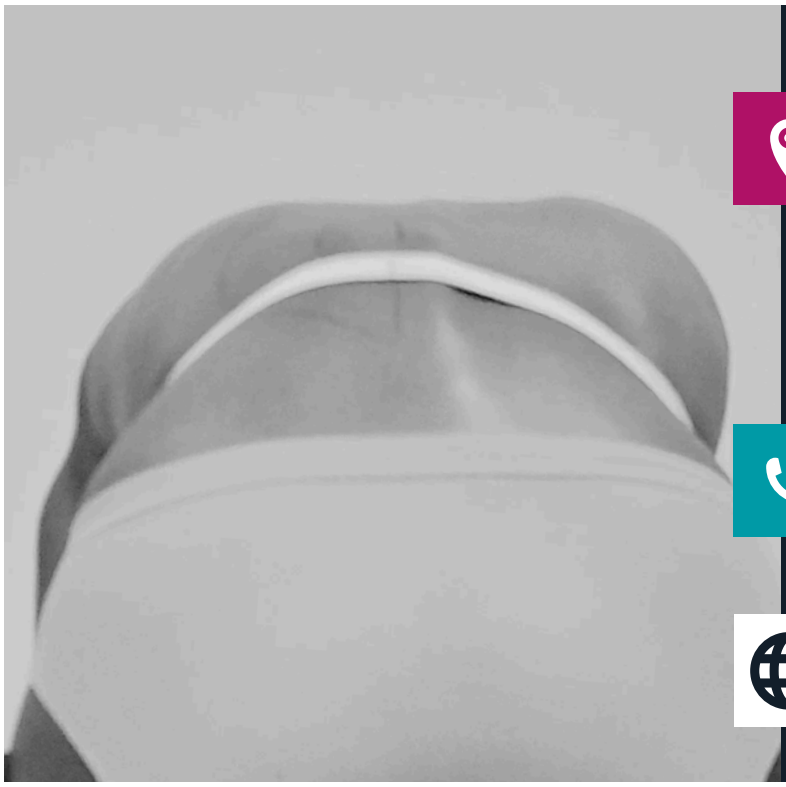
EpiDisease S.L. is an epigenetics biotechnology company that was founded in 2014 which develops and commercialises a pipeline of patented proprietary in vitro diagnostic (IVD) products and clinical software tools incorporating AI for complex human diseases.

EpiDisease has internationally recognised expertise in the analysis of epigenetic mechanisms such as DNA methylation, histone code/variants and miRNA, which are crucial for the study of gene expression. The Company has developed proprietary models for the development of novel epigenetic biomarkers and has characterized epigenetic drugs for public and private clients.

EpiDisease is a spin-off of the Centre for Biomedical Network Research (CIBER) of the Spanish National Institute of Health Carlos III (ISCIII), and is a Spin-Off of the Biomedical Research Institute INCLIVA and the University of Valencia

Arrange a free trial

Bring expert peer-reviewed, automated spinal measurements into your clinical workflow



Address :

Parc Científic Universitat de València
C/ Catedrático José Beltrán nº 2
Edificio 5, Planta 1.
46980 Paterna (Valencia)
España

Phone :

+34 960-42-01-57
+34 644416994

Website + email:
www.epidisease.com
info@epidisease.com

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