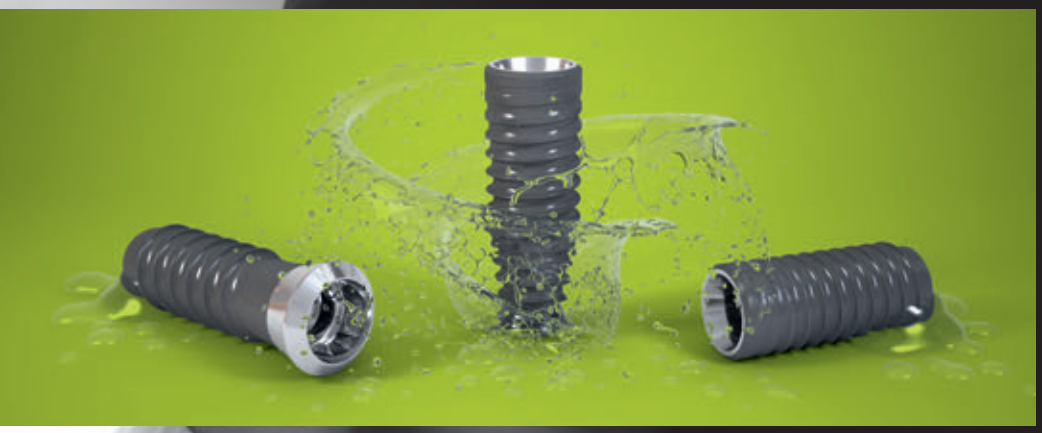
Product Information

Straumann® SLActive®

Performance beyond imagination. A new magnitude of healing power.



straumann
simply doing more

10 YEARS OF CLINICAL SUCCESS AND PROVEN PREDICTABILITY

IMMEDIATE LOADING

High predictability in immediate loading

COMPROMISED PATIENTS

Outstanding success rates in compromised patient groups

ENHANCED BONE GRAFTING

Significantly higher formation of new bone aggregate

Setting the standard for success. Performance beyond imagination.

For over six decades, Straumann® has made significant contributions to progress in the field of dental implants. Through pioneering innovation, we have redefined the boundaries of possibility for dental professionals and patients. We have made faster treatment, shorter healing time, and better outcomes a reality.[1] Now, the extensive healing potential of SLActive® can be seen even in challenging patients and treatment protocols.

As dental implants are now becoming a mainstream treatment option, clinicians face ever-increasing patient expectations. Patients expect successful treatment results irrespective of their bone quality, age, lifestyle, or medical history.

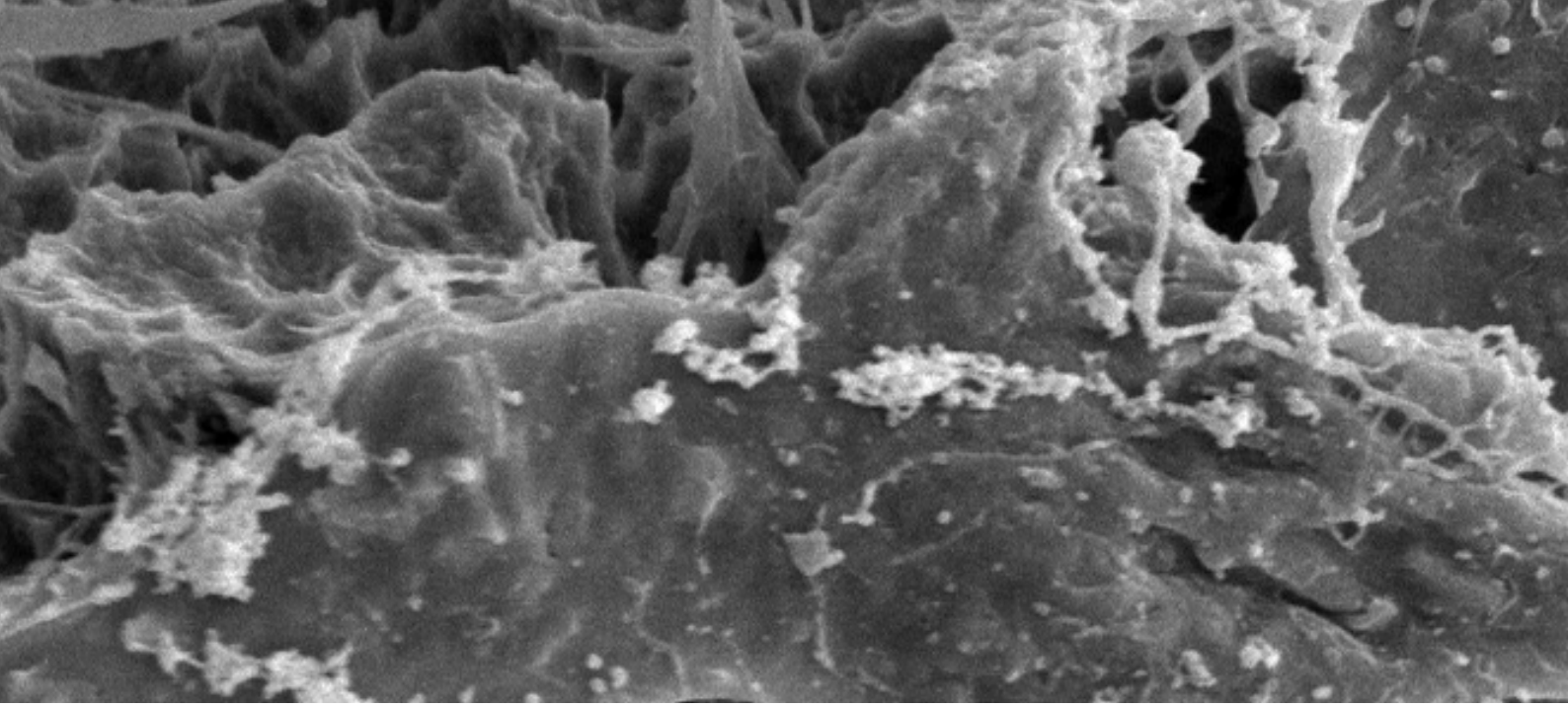
Achieving predictable treatment outcomes has been the main focus of the SLActive® clinical development strategy. Together with leading clinicians worldwide, Straumann has studied the clinical performance of SLActive® implants under the most challenging medical conditions and treatment protocols to demonstrate the outstanding healing capacity of the SLActive® surface. As new insights emerge and new data becomes available, discover how you can benefit from the high performance SLActive® surface to support your patients' healing capabilities.

IMPLANT SURVIVAL RATE IN IMMEDIATE LOADING AFTER 10 YEARS[2]

Randomised controlled multicenter study
(30 patients, 39 implants)

IMPLANT SUCCESS RATE IN IRRADIATED PATIENTS WITH COMPROMISED BONE, AFTER 1 YEAR.[3]

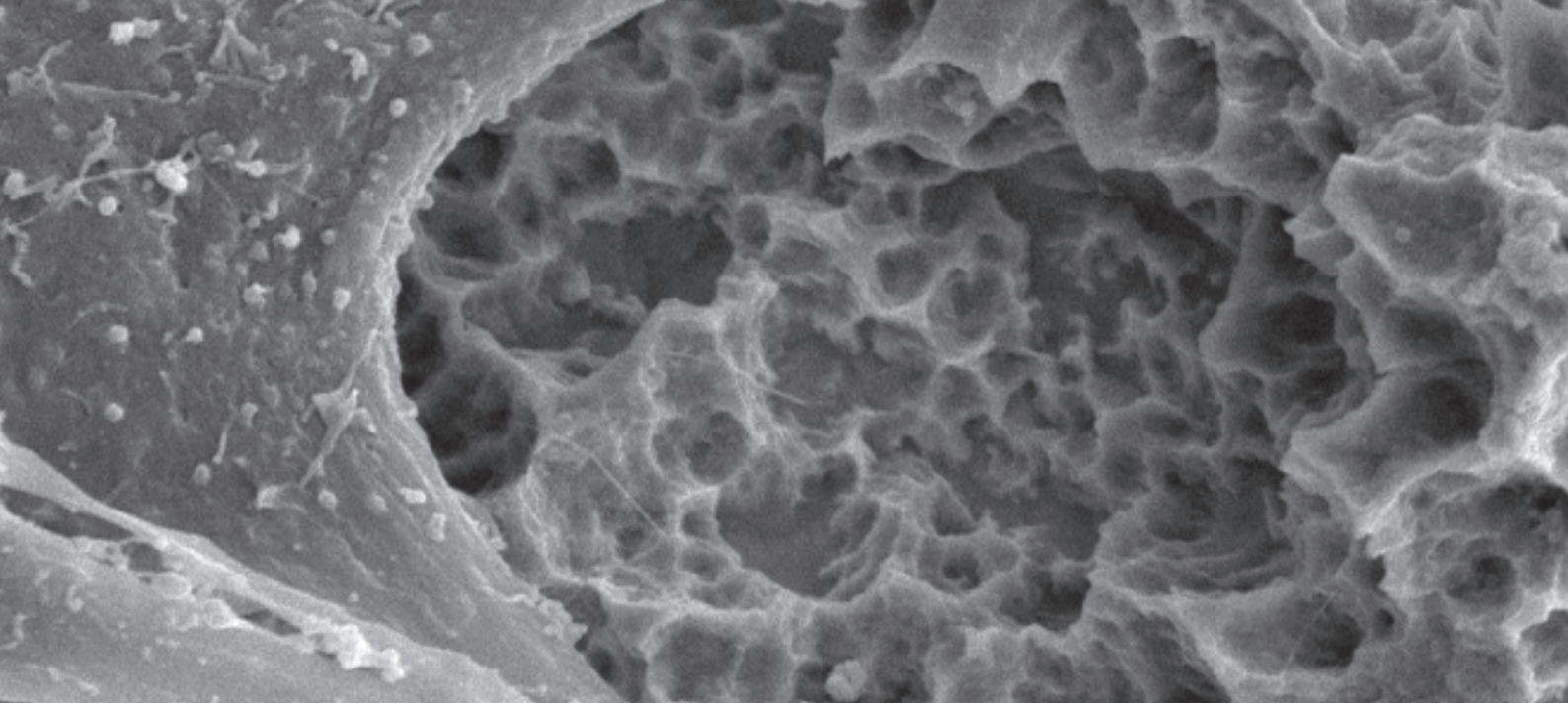
Randomised clinical trial
(19 patients, 97 implants)



Immediate loading with long-lasting results.

New long-term data from a randomized, controlled, multicenter study demonstrate the impressive performance of SLActive® with immediate loading. In fact, the SLActive® Implants delivered a 10-year survival rate of 98.2 % in this challenging protocol.[2]

Ever increasing patient expectations continue to drive demand for faster, safer and more efficient treatment protocols. Immediate loading allows the clinician to place a prosthetic restoration on the same day as the implant.
This approach allows a patient to benefit from the restoration straightaway. However, this demanding protocol carries a higher risk of failure due to premature loading of a healing implant.



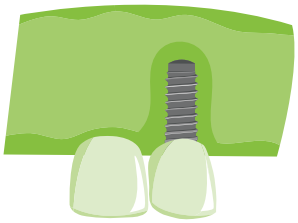
Study design

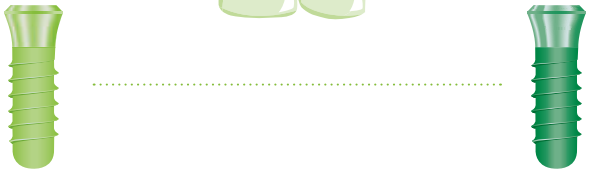
64 Patients

31

10 years
Study follow-up

Indication
maxilla or mandible of partially edentulous patients;
temporary restoration (single crown or 2–4 unit fixed partial denture)
was replaced by permanent restoration 20 to 23 weeks post surgery





Immediate loading
39 implants
(restored the same day)

Early loading
50 implants
(restored after 28–34 days)

Randomized controlled multicenter study

IMPLANT SURVIVAL RATE IN IMMEDIATE LOADING AFTER 10 YEARS[2]

98.2%
survival rate

Randomized controlled multicenter study

STUDY CONCLUSION

- SLActive® implants provide a long-term highly predictable treatment option

Discover the healing power of the high-performance surface.

SLActive® in irradiated patients. Predictability beyond expectations.

One of the most challenging patient groups for implant treatment includes patients who have undergone a combination of tumor surgery, chemotherapy and radiotherapy. Irradiation leads to decreased bone vascularity[4,5], impaired osteoblastic activity[6] and reduced bone vitality[7,8], which severely compromise bone quality in these patients. The fragile mucosa and the risk of osteoradionecrosis present further challenges. However, from a quality-of-life perspective, this patient group stands to benefit the most from implant supported prosthetic rehabilitation.

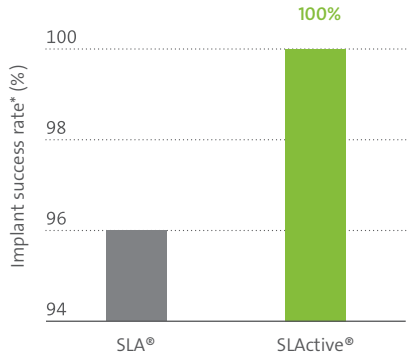
SLActive® showed a 100 % success rate in irradiated patients in a recent randomized clinical trial (RCT).[3] Based on published reviews[9,10,11,12], no other implant surface has demonstrated such a success rate in this patient group within an RCT setting. Remarkably, the 5-year follow-up of the trial showed that none of the surviving patients had an SLActive® implant failure. The effective implant survival rate was an outstanding 100 %.[13]

SLActive® PERFORMANCE IN IRRADIATED PATIENTS

Randomized Clinical Trial[3]:

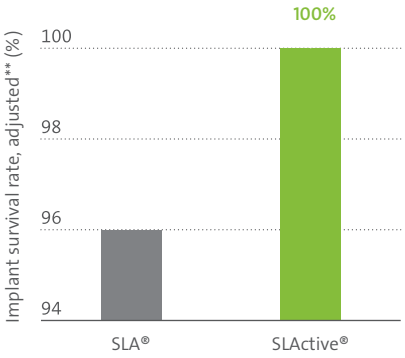
- 102 implants, 20 patients
- Post-surgery, radiotherapy and chemotherapy for oral carcinoma

1-year follow-up[3]



1 patient was excluded from the study due to tumour recurrence. The graph is thus based on 19 patients with 97 implants.

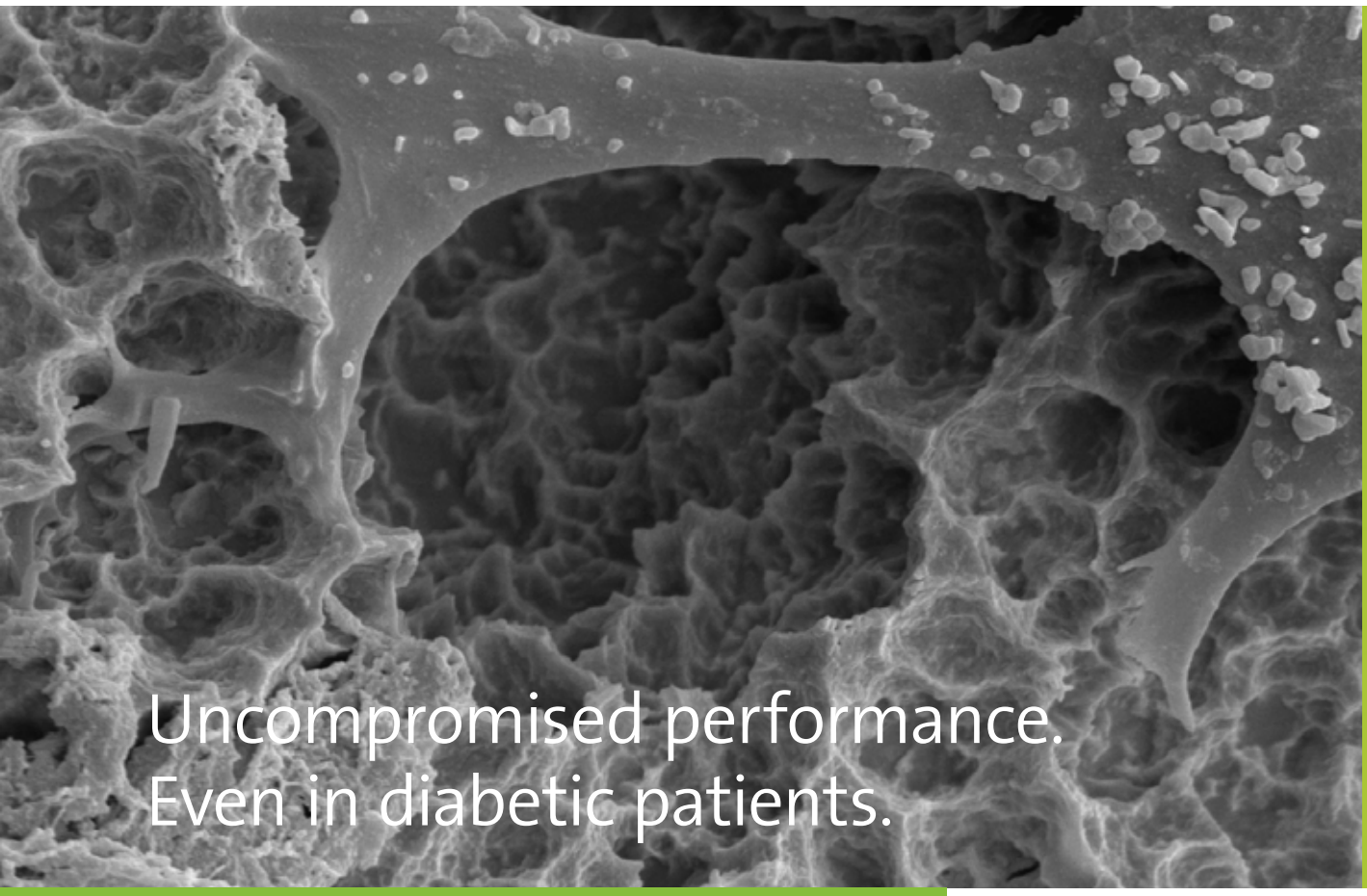
5-year follow-up[13,14]



Excluding 4 further patients deceased due to cancer. The graph is thus based on 15 patients with 79 implants.

* Success criteria as per Buser D. et al. Long-term stability of osseointegrated implants in augmented bone: A 5-year prospective study in partially edentulous patients. Int J Periodont Restor Dent. 2002; 22: 108–17.

** Adjusted, excluding the patients deceased due to cancer mortality.



Uncompromised performance. Even in diabetic patients.

Patients with diabetes have reduced wound healing capacity,[15,16] putting dental implants at risk, particularly if the patient is unaware of the condition. Worldwide, 1 in 11 adults has diabetes, while among adults 60 years of age and older, the prevalence is twice as high.[17]

Over the past 30 years, the number of people with diabetes in the US has quadrupled and, according to the US Center for Disease Control (CDC), the figure could increase to as many as one in every three adults by 2050.[18] In an estimated 50 % of people with type 2 diabetes, the disease remains undiagnosed.[17]

Given the ever rising prevalence of type 2 diabetes, how can clinicians address this risk, particularly in older patients?

GROWING CLINICAL EVIDENCE OF HIGHLY PREDICTABLE PERFORMANCE OF SLActive® IN DIABETIC PATIENTS:

A new clinical study[19] that compared SLActive® performance in patients with and without diabetes showed uncompromised performance of SLActive® implants:

- 100 % implant success rate in the diabetic group
- Bone changes similar to those in healthy individuals
- Despite the observed lower levels of bone quality all implants in this study showed good primary stability

PERFORMANCE IN DIABETIC PATIENT GROUP[19]

Case-control clinical study
(15 diabetic and 14 healthy individuals)

NEW RESEARCH SHOWS THAT SLActive® DEMONSTRATES HIGH ANTI-INFLAMMATORY POTENTIAL:

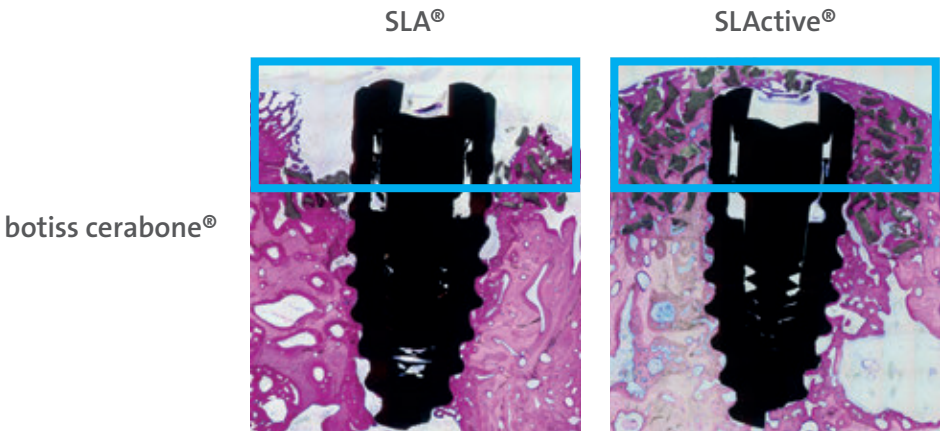
- Roxolid® SLActive® surface stimulates an early anti-inflammatory cell response[20]
- SLActive® modulates the excessive inflammatory response in diabetic animals, leading to improved osseous healing[21]

Enhanced bone regeneration. Even at compromised sites.

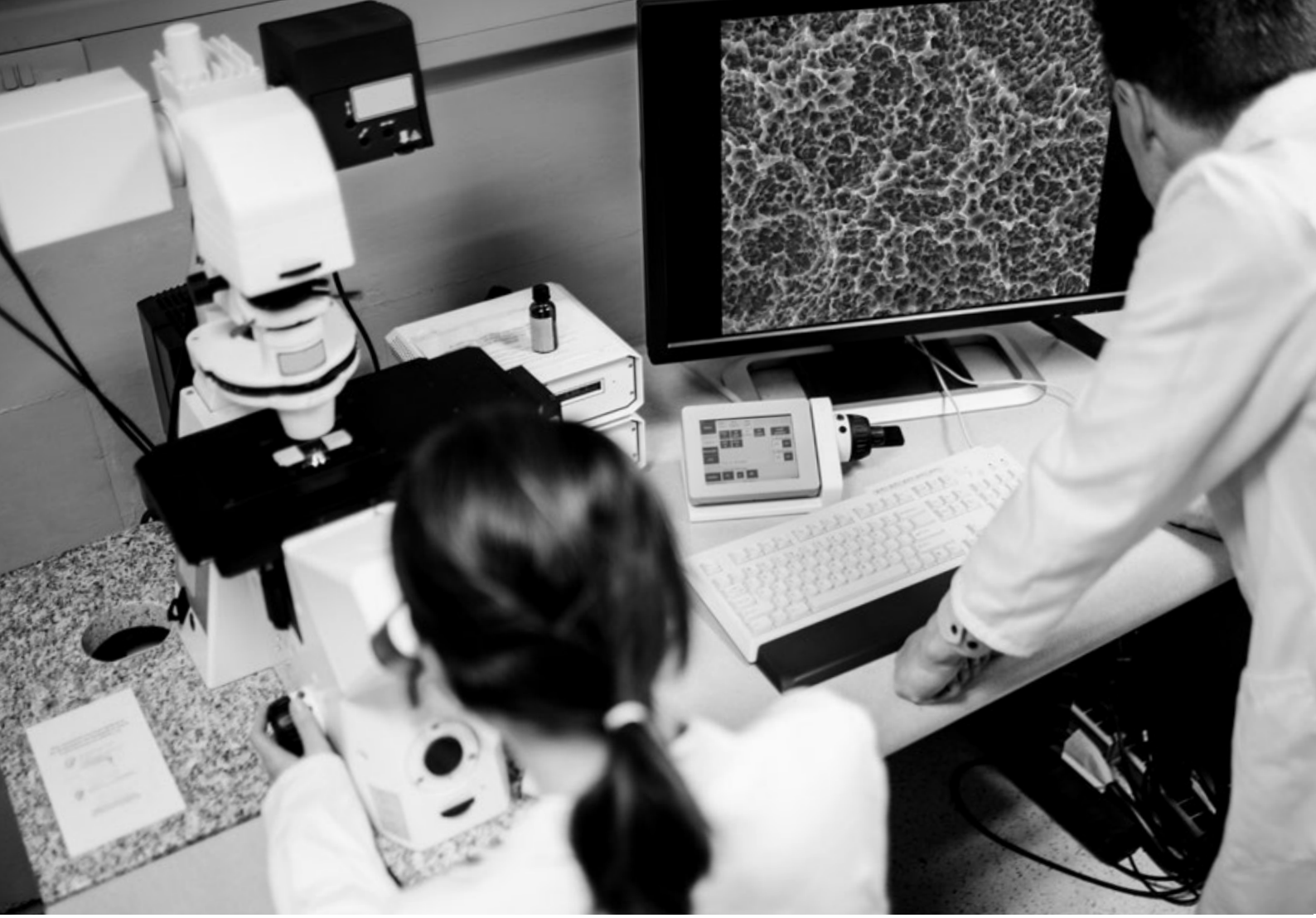
Bone defects can greatly compromise the predictability of osseointegration. In a recent preclinical study[22], SLActive® showed significantly higher formation of new bone aggregate within eight weeks compared to the standard Straumann® SLA® hydrophobic surface.

Buccal bone to implant contact was significantly higher in SLActive® groups as compared to standard SLA®, highlighting the benefit of SLActive® to support faster bone integration, in coronal circumferential defects

BONE AGGREGATE FORMATION AT 8 WEEKS.



Histological views of bone aggregate (new bone and grafting material) 8 weeks post-grafting.



- REDUCE TREATMENT TIME.[1]
- REDUCE HEALING TIME.[1]
- REDUCE RISK.[1]

Please contact your local sales representative to get more information about the advantage of the SLActive® surface now or visit **slactive.straumann.com**

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