Does the perfect implant exist?

**Study 1**

**Soft-tissue reaction**
- Fibroblasts show superior connection to rough ceramic surfaces leading to connective tissue attachment. [Mustafa K, Eden A, Wannberg A, et al; Biomaterials. 2005 Feb.]
- Attachment complex of gingiva and abutments made of aluminium-oxide ceramic is similar to that to the tooth. Exhibits a basal lamina and hemidesmosomal layer. [McKinney RV Jr, Smith SD, Kohl SJ, Int Periodont. 1985 Oct.]

**The natural model**
- The phenomenon of self-cleansing has been scrutinized and offers possibilities of protection against plaque and microorganisms. Applying the characteristics of the lotus effect on implant surfaces creates a self-cleansing phenomenon. [Furstner R, Barthlott W, Neinhuis C, et al; Langmuir. 2005 Feb.]

**Study 2**

**The natural model**
- The phenomenon of self-cleansing has been scrutinized and offers possibilities of protection against plaque and microorganisms. Applying the characteristics of the lotus effect on implant surfaces creates a self-cleansing phenomenon. [Furstner R, Barthlott W, Neinhuis C, et al; Langmuir. 2005 Feb.]

**Study 3**

- One-piece implant shows the least bone resorption when the surface is roughened.
- Surface roughness is carried to the margin of the crown, respecting the biological width. [Harman GA, Cochran DL; J Periodontol. 2004 Apr.]
- With the two-piece system, it is impossible to keep the micro-gap free of bacteria. This leads to an inflammation of the marginal mucosa. [Guo G, Besette CE, Besette R, et al; J Oral Rehabil. 1998 Jun.]
- Sealing Materials to fill up the inside of an implant e.g. wax offer best nutrition for bacteria in the micro gap. [Xu X; Universität Köln. 2004 Mai.]
- Positive gingival aesthetics is based on a constant and healthy biological width. The gingiva around the one piece implant is similar to the gingiva condition of natural teeth. Two piece systems show inferior biological results. [Hermann JS, Buser D, Schenk RK, et al; Clin Oral Implants Res. 2007 Dec.]

**Study 4**

- A moderate implant loading with provisional restorations improves the periimplant bone quality. [Nentwig GH, Psenicka H; Göttingen. 2003 Nov.]

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**Result of scientific studies.**

The One Piece Ceramic-Titanium Implant. (patent.)
The Ceramic-Abutment:
- Aesthetics in soft tissue
  No display of the dark titanium through the gingiva.
- Soft-tissue barrier
  Superior gingival integration.
  Connective tissue attachment.
- Preservation of biological width and aesthetics
  due to the individual preparation of the ceramic in harmony with
  the shape of the gingiva.
- No heat generation
  and no necrosis of bone during the preparation.

The Lotus-Effect of the Abutment: (patent.)
- No adhesion of plaque and microorganisms as in the natural tooth.
- Self-Cleansing biologic surface due to a special combination of micro-
  and nano-structure.

The Connection: (patent.)
- Long-term connection free of microorganisms
  Stable connection of the ceramic to the underlying titanium when exposed to
  the oral cavity due to isostatic pressing technique.
- No micro-gap-effect:
  No horizontal and vertical bone-loss caused by microorganisms as found in the
  micro-gap of conventional two-piece systems.

The Titanium-Screw:
- solid with long term proven stability
- surface for a safe osseointegration
- conical shape as the natural tooth
- absolute symmetry of rotation
  insert with optimal insertion torque for superior
  primary stability and immediate function

The biological, aesthetic
implant that follows the model of nature.