

Meeting the Einstein in Dentistry

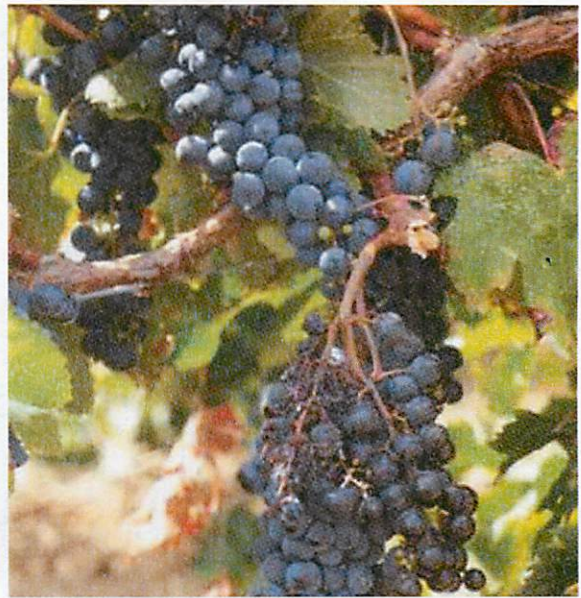
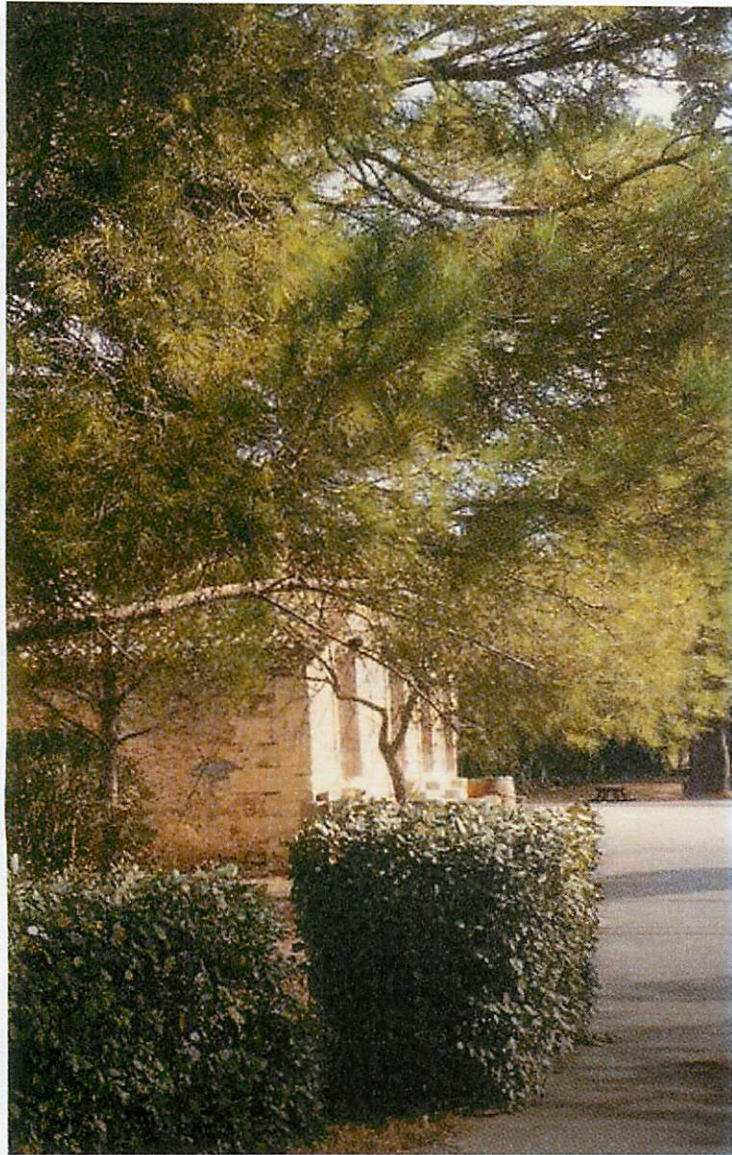
BY DR. BELINDA LEE

France has always been a dream destination of mine. A country of romance, architecture, culture, picturesque villages and exquisite gastronomy. When offered the opportunity to visit Prof. Francois Duret and his wife, Dr. Elizabeth Duret in France, both of whom are held in high regard in the field of dentistry, I gladly took it up.

Our journey began with a series of flights from Singapore to Munich, Paris and Montpellier. We finally arrived at Languedoc-Roussillon following a car ride

from Montpellier. Located in the south of France, the weather here was contrary to expectation. It was surprisingly hot. The hot summer's heat which extends to autumn, has led many pastures to dry up. We finally arrived at our place of stay - the Chateau L' Hospitalet.

Chateau L'Hospitalet is a renowned wine estate and a top destination for wine connoisseurs throughout the world. This 3-star hotel was surrounded by a picturesque vineyard. Away from the hustle and bustle of the city, the small quiescent town has shops that



close at 6pm. It is a perfect spot for a vacation, allowing one to sip wine and unwind from all the stress of the big city. The Languedoc-Roussillon region is off the coast of the Balearic Sea and is the single biggest wine-producing region in the world, supplying more than a third of the wine that France produces. The Chateau L'Hospitalet is managed by Gerard Bertrand, whose name is no stranger to the wine industry. Being the recipient of the European Winery of the Year, the quality of Rosé, White, and Red wines that were served to us exceeded our expectations.





The Cerec 2 of the Siemens Company

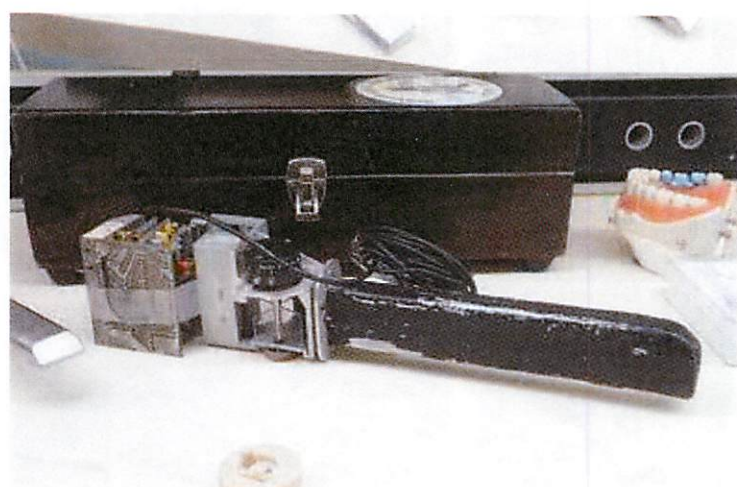


Prof. Duret's CAD CAM and milling system with Henneson Company

After a good night's rest, we proceeded to visit Prof. Duret and his lovely wife at the Chateau de Tarailhan where many inventions were built. Prof. François Duret is a dentist by profession, holds a Masters in Periodontology and two PhDs in Gastroenterology and Odontologic Sciences. He is a visionary. During his undergraduate days, while struggling to take the perfect impression for his laboratory work, he thought to himself that there had to be a better way. In 1973, he wrote his undergraduate thesis on "The Optical Impression" which lead to the invention of the buzzword that is used so often today - CAD CAM technology. He envisioned the

need for digital impressions to be made directly in the mouth, omitting the need for gooey impression materials that make patients gag at their taste and texture. The digital information captured will then be sent for design and milling of the restoration. As he explained his thesis to us, we could see in his eyes the glow of enthusiasm, excitement and fondness for his research.

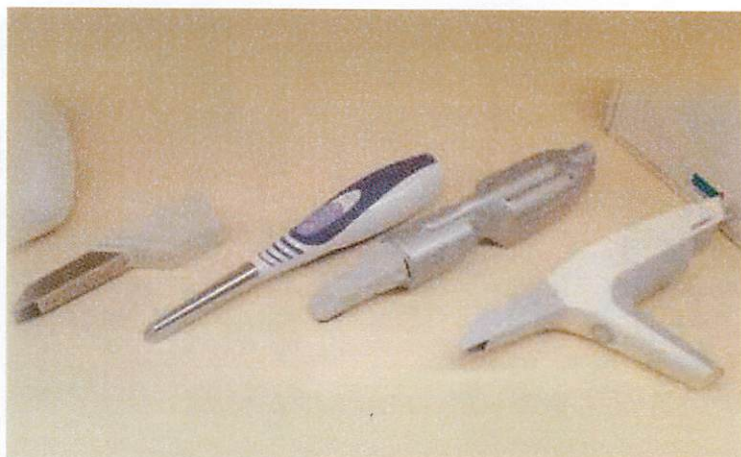
He was also very excited to show us his innovation, the Condorscan, an intra-oral scanner which facilitates the process of taking impression data for CAD CAM restorative crowns and bridges. Using GPS satellite



The original intra-oral scanner prototypes as developed by Prof. Duret



Prof. Duret's showcases of his CAD CAM work and publications

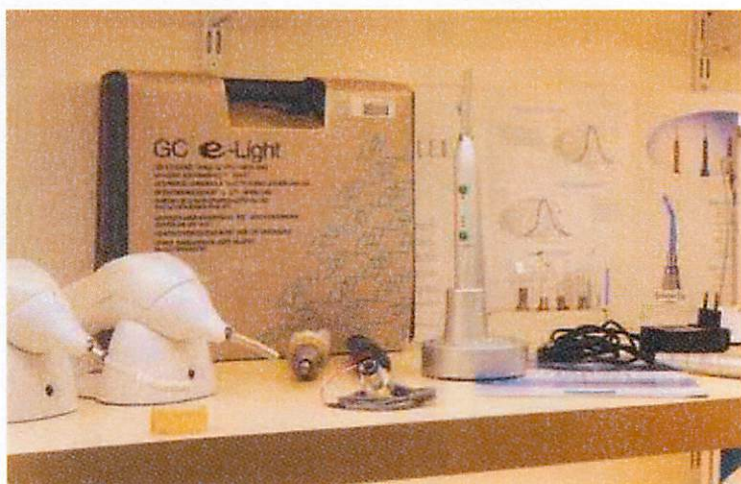


Intra-oral scanner prototypes as developed by Prof. Duret

technology, Prof. Duret and his team have successfully refined scanning technology so that measurement of distance is more accurate. Digital data of the oral mucosa and dentition can be uploaded to a monitor. This allows the image to be used for diagnostic purposes. It was really amusing to see the various prototypes of intra-oral scanner design that were on display and how they have evolved throughout these 30 years. Many companies have developed their current models based on the initial design of Prof. Duret. Dr. Elisabeth Duret was very kind to show us her work place in which she runs trials for the intra-oral scanner. She has always

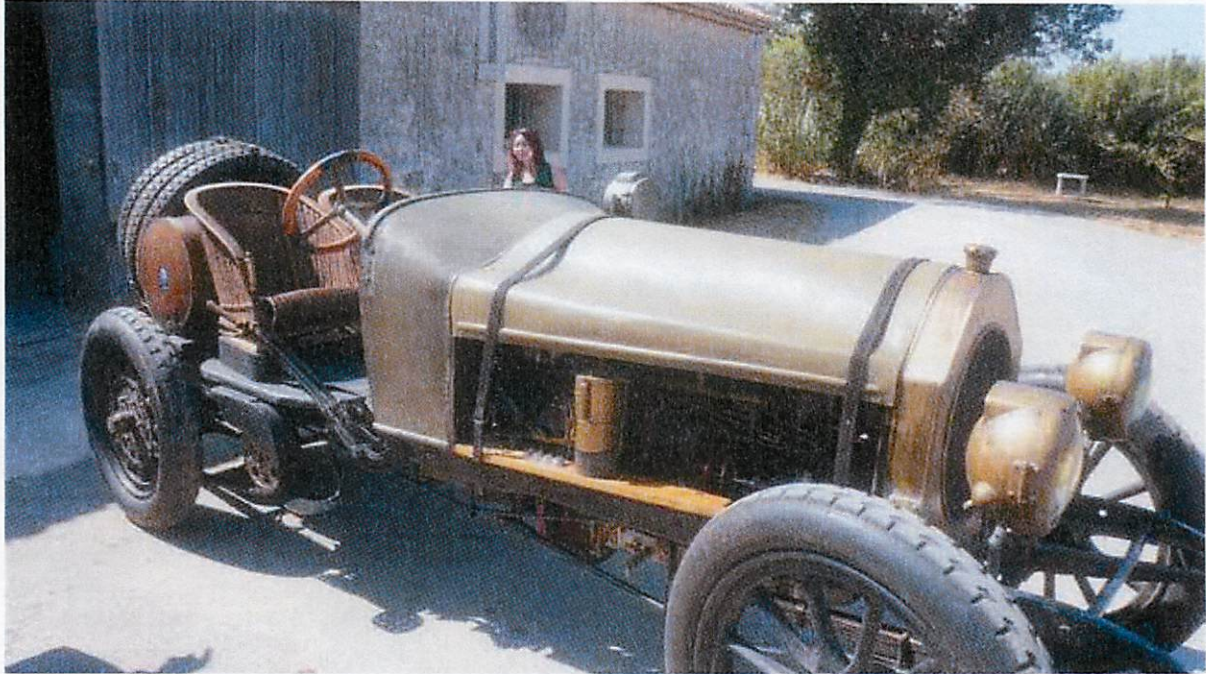
been the great pillar of support in all of Prof. Duret's work. Indeed, behind every successful man is a woman!

Being the man that constantly looks to innovate and improve the workflow in dentistry, Prof. Duret has more than 50 patents and has published research in various fields such as polymerisation, composite post, articulators, and bleaching techniques. His work on polymerisation started with the invention of the Apollo plasma lamp, which later evolved to become the Mini LED. This is the same LED that is inbuilt in our light curing machines today.



The design of Apollo 95 and Mini L.E.D which revolutionise light cure polymerisation





After a morning of discussions, he proceeded to show us his collection of great cars. When he is not at work, he indulges in his collections of antiques, philosophical books and racing. Not only does he own an F1 race car, his oldest car was from 1905 and it is still functioning very well. It was indeed very amusing for us as he carefully explained how one should get in and out of these sports cars!

The visit to his work cabin was definitely a nostalgic one. It was like walking down memory lane. Televisions used to be enormous with black and white visuals, before they were refined to the flat screen, high definition coloured Smart TVs that we have today. Many

principles and concepts in dentistry have not changed since the 1970s. Yet there has been so much refinement and innovation for each item. We have taken them for granted, not knowing the history and the trials and tribulations behind every innovation.

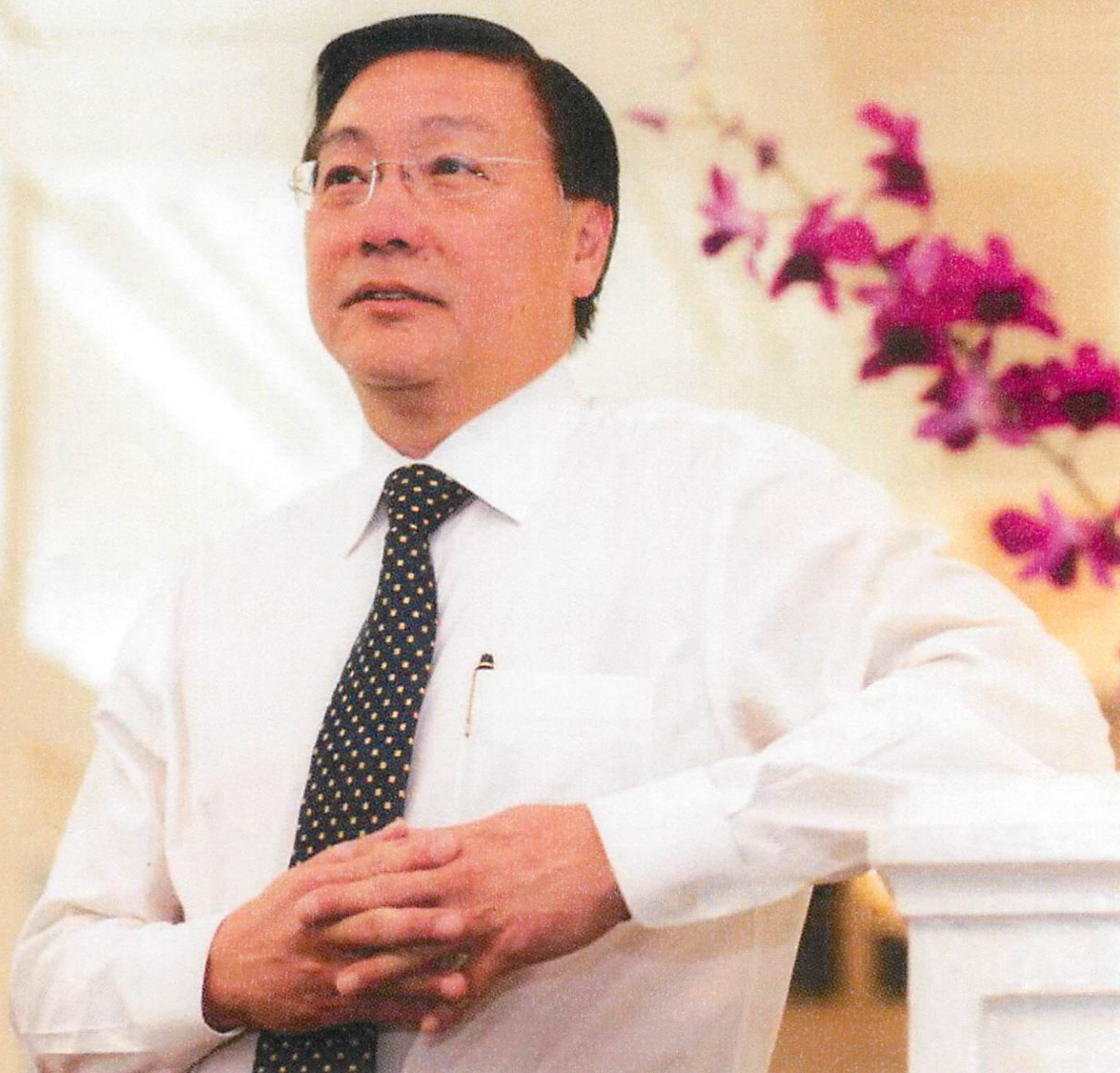
Having spoken to him on a personal capacity, I find that Prof. Duret is a multi-talented, brilliant yet humble man who is very willing to share and discuss his theories and knowledge with everyone who is interested. His last visit to Singapore was for the FDI conference in 1990. We shall look forward to welcoming him should he lecture in Singapore again! 🇸🇬

Dr. Belinda Lee graduated from King's College London in 2013 and is a general dental practitioner in White Cloud Dental by FDC. Besides scouting out places to eat in Singapore during her free time, she enjoys swimming, going to the gym and playing golf.



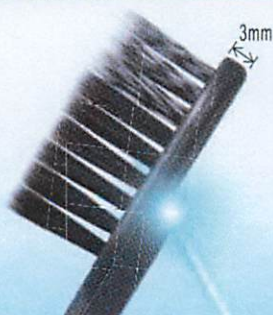
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