

Australia's quiet achiever in myofunctional orthodontics

By Joseph Allbeury

wo thousand two hundred and one exhibitors participated in the recent International Dental Show, the IDS, in Cologne, Germany. It's an expansive event, unlike any other in the dental profession; the epicentre for every manufacturer on earth to connect with everyone else.

As an Australian reporting on that event, I'm always eager to see just how many of those come from Australia. IDS is a model of German efficiency and so that list is readily available from the organisers. But at some point in the evolution of a successful Australian manufacturing organisation, you transition off that list and onto the world stage.

And so is the case with Queensland's own Myofunctional Research Co.

With its European head office in the Netherlands, Myofunctional Research Co. left that list to became a global player a decade or more ago and at the IDS, they take the honours as the largest exhibit by an Australian company.

"IDS is the place where we connect with our global distribution network," explains MRC Founder and CEO, Queensland dentist Chris Farrell. "Like our business, the size of our exhibition space is an evolution of our past experiences exhibiting here and is designed to ensure we get the most from the event.

"We have meeting rooms where we can discuss business with our dealers or host our key opinion leaders. We show off the Myobrace Pre-Orthodontic Centers concept we're propagating globally in support of our products and early interceptive orthodontics. We endeavour to immerse our customers in our culture, albeit briefly, to ensure they understand what we do, why and how we can help each other to grow.

"We have distributors in practically every country on Earth where dentistry is practised and we've built that network over the last 20 years, largely through the IDS and similar shows.

"This event, in particular, is the one place that everyone we do business with attends from all over the world, so we seek to capitalise on that opportunity to connect face to face with many people we would, in effect, never see."

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Above and below: MRC's European HQ and exhibiting at IDS 2015.



Above: Myofunctional Research Co's global HQ in Queensland.







Two weeks later, I'm back in Australia on Queensland's Gold Coast with the kids for school holidays. We've been to a different theme park ending in the word World every day for a week; Now we're at Movieworld – again – and I need a break.

Across the road – *literally* – is Myofunctional Research Co's Australian HQ. The last time I dropped in on Dr Farrell more than that decade ago, the business was running out of his house and something great was threatening to happen; I just didn't really understand what.

A simple concept

Dr Chris Farrell is not the type to keep an exact count of how many appliances he has sold since I was last here, but the number, he says, exceeds 5 million.

"We've treated more patients than Invisalign®, in excess of 5 million, but because we're a private Australian company and our products cost a fraction of the price, we sail along under the radar."

Despite being somewhat of a global phenomenon, like many in the Australian dental community, I'm not 100% up on what the Myofunctional Research Co. actually does.

"In essence, what we do here is to produce appliances that help correct muscular problems in the jaws that otherwise can inhibit the natural way the body develops and functions," Dr Farrell explains.

"We know orthodontics works best the earlier that treatment begins because we can take advantage of the tremendous changes that occur as children grow. The older the child, the more invasive the options available for correcting problems become.

"Earlier treatment allows us to guide the body's own growth to correct problems; once a child enters their teenage years, orthodontic treatments become more intense and utilise more force to correct problems.

"So what we do is to use research and an evidence base to create appliances that correct a variety of myofunctional habits in children and adults to allow growth, development and function to essentially proceed as it should.

"Our signature appliance system, the Myobrace, for example, addresses three key issues in development. It promotes breathing through the nose, positioning of the tongue correctly in the upper jaw and finally retrains the poor swallowing habits that accompany mouth breathing.

If these three problems are corrected at an early age, it allows the body to develop normally and can head off a range of subsequent dental issues - like a narrow arch and Class II malocclussion - and broader health issues that can result."

Myofunctional Research now has an extensive range of appliances, headed up by the *Myobrace*®, for various indications, applications and ages - as young as 3 and up to the age of 15. The appliance designs all have patented features and are prefabficated, requiring no fitting or adjusting. The child can put the Myobrace in their mouth themselves and then myofunctional orthodontics starts.

A well-honed system has been developed for prescribing dentists to use to match appliances to indications. Treatment is progressed and advanced by moving through a series of stages in each appliance - essentially encompassing habit correction, followed by arch expansion and finally dental alignment.

Due to the massive quantities now being sold, production has moved from Melbourne to Taiwan. Distribution centres are now located in Australia, Europe and the USA, supplying dealers in some 110 countries.

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Less invasive, less cost

By using our appliances early in a child's development, it's possible to head off what is essentially a longer, more expensive and more invasive treatment regime that requires management by specialists.

"In Australia, brackets and wires are almost a right of passage for teenagers, but in our strongest markets, that is often not an option for everyone.

"Using our appliances, we can head off a range of problems by guiding the body to develop correct muscular habits that result in better breathing, better sleep and overall improvements in general health.

"In first world countries like Australia, there is a very traditional approach to orthodontics in children with expensive, long term treatment plans with lifetime retention being the norm.

"As dentists, however, we are compelled to search for effective solutions, regardless of the cost of treatment to the patient.

"In markets like Russia, our appliances are very popular because they simply want effective treatment as cost-effectively as possible and they understand the health benefits.



"In markets where there are more traditional, highly profitable pathways already in place, we equally need to ensure practitioners have good reason to utilise the innovative treatment approaches we offer. It is really about health and parental demand for this treatment that is forcing changes in traditional orthodontic practices."

Education is the key

Myofunctional Research Co's Queensland HQ is an impressive set-up. The complex incorporates sales, marketing, product development, administration, training and warehousing and distribution for Australia and Asia. Everything you would expect from the global operation.

However, unique to the company is its extensive in-house multimedia and training facilities. The company develops its own advertising and educational materials in-house, including 2D and 3D animation, packing, advertising and other support materials, largely due to the inherently specialised nature of the content.

The facility also includes video production facilities – effectively a TV studio - for use in their multimedia training regime for both dentists and patients.

MRC Appliance Menu

Myobrace for Juniors

Myobrace for Kids

Myobrace for Teens

Myobrace for Adults

Myobrace for Braces

Myobrace for Class III

myOSA Snoring Appliance

MyOSA for Bruxing

MyOSA for TMJ

From here, training can be delivered to a dedicated conference room within the facility, or anywhere in the world.

"We started over 20 years ago with a concept," Dr Farrell said. "Over the ensuing years, we have continued on an enlightening path of product development. Equally, we have also invested heavily in supporting the products we sell and the treatment regimes we advocate.

"We have learnt from experience how to educate practitioners with face-to-face and remote training as well as a full range of marketing and support materials.

"More recently, we've embarked on educating patients, many of whom are children, and many of whom do not speak English. Patient compliance is critical with appliance therapy so in support of that, we've been developing both individual tools, like 3D animations that run on PCs and iPads, to a complete concept for a dental clinic that is visually welcoming and enticing for younger patients.

"Our clinic concept, in particular, demonstrates to practitioners how they can use our Myobrace appliances to deliver treatment efficiently, effectively and profitably."

Part of the road to profitable delivery of treatment with MRC products is efficient use of practitioner time. By employing video-based training aids, MRC helps the practitioner delegate the delivery of patient education whilst at the same time, increasing its effectiveness.

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Myofunctional Research Co's global HQ in Queensland includes a large lecture room with full audio visual facilities including a TV studio for broadcasting content or producing video and audio for use in its comprehensive training resources aimed at dental professionals. The company also utilises 2D and 3D animation served on iPads, smartphones and PCs to help educate and support young patients using its appliances.

"There is a lot of psychology in the education we deliver," Dr Farrell explains. "Children perceive that the dentist is someone who talks to their parents about their treatment. It is more difficult for a dentist to truly connect with a child in an essentially short timeframe.

"Using our training system, families can be hosted by a dental assistant or educator whilst they interact with a video presentation that uses 3D animation designed to communicate with kids at their level. This allows a longer education session because the education is being delivered by video with a DA there to ensure the process runs smoothly, rather than taking up practitioner time.

"The presentations are also carefully designed and comprehensive, so the DA does not need to be comprehensively trained on the system either.

"Most importantly, however, the interactive presentations fully engross young patients in the importance of their treatment and ongoing compliance with the Myobrace system." As a global operation, the education MRC develops is able to be delivered in multiple languages with other modifications based on cultural needs.

"We use multilingual animations on computer or tablet as

our medium

of choice for educating young patients. This is literally the world they live in and derive a great deal of knowledge and infleunce from, so we are taking advantage of that to get our own messages across.

"My oldest daughter creates all the 2D characters and animations in a very child friendly manner, while the 3D technical animations are created so the child can literally see inside the mouth as to where

their tongue should be. Our head of production, Daniel Smith, then puts it all together in an animated multi-lingual series of videos. We also have a 9-part nutrition series, all with animated

> Children take more notice of education presented on an iPad animation than spoken by a dentist.

characters. This is all put together in an app. by the production team so we record and produce everything in-house.

"My other daughter is also involved in the sales and marketing side of the

business. She was with us at the IDS and is now working in New York and in our California office, updating our US staff on the latest developments in applances and educational material. She has been doing dental shows globally since she was 10!"







Myobrace Pre-Orthodontic Centers

As an evolution of the company's immersion in early interceptive orthodontics, Dr Farrell has piloted the "Myobrace Pre-Orthodontic Centers" concept in Australia on the Gold Coast and in Bondi Junction in Sydney.

"The Myobrace Pre-Orthodontic Centers we've set up in Australia are essentially part of a pilot project for rolling out the concept around the world.

"It's a full system for dentists to use that includes optimal workflows for treating and educating patients using our systems, supported by design, graphics, multimedia and marketing materials.

"We provide guidance on treatment room design and equipment selection that hides everything away so that it is very non-threatening to small children.

"We provide training on optimal staffing and patient management and how treatment is delivered efficiently, effectively and profitably.

"The centres are designed to inspire dentists to embrace early treatment for orthodontic problems, whether immersed in an Myobrace Pre-Orthodontic Centers approach, or using our well-proven, evidence based products and systems to deliver care in their regular practice."

The future

A fter producing several million appliances, it is easy to see Myofunctional Research Co. as a mature operation at its peak, however, according to Dr Farrell, the best is yet to come.

"For over 20 years, we've been working away steadily, growing a global business and being very successful at it. But we've largely done it without any great help or support from the broader dental community. There are people who love us and people who don't. And there are people who don't see the value in what we do. That's life.

"But what we're seeing now is a real change in the way people are thinking in many areas of dentistry and medicine. Only a few years ago, for example, CPAP was seen as the gold standard and only option for treating sleep apnoea. Now, globally, study after study is being released in support of appliance therapy as an effective solution for treating OSA with a high level of patient compliance."

MRC is developing a new appliance range under the name MYOSA - myofunctional sleep appliances. Starting with adapting some existing adult appliances for snoring and TMJ under this name.

"The importance of breathing properly, in both adults and children, is increasing in interest in the broader medical community as it is being linked to a range of other problems. Because promoting correct breathing habits forms the core of our appliance therapies, we suddenly have the product *du jour* for clinicians looking for treatment solutions," Dr Farrell said.

"If children are having problems with breathing, it can lead to a wide range of issues in their development that can carry through to impact their adult lives. Some of these issues can be averted or rectified with appliance therapy and we're already seeing competitive products to ours launching to try and tap into this market.

"From our perspective, the growing focus on this area of medicine and dentistry is bringing our operations more into the mainstream as when practitioners start to look more closely, they inevitably connect with use and its like a revelation. Suddenly they discover that there has already been a 20-year development focus on this area and a full range of treatment options are readily available.

"Dentists have to realise that they have a whole waiting room full of patients that could benefit from our treatment regimes who will be eternally grateful for the difference we can make to their quality of life and their children's. We encourage everyone to contact us and participate in one of our training days and discover how to start making a difference today."