Since a creative young Croda scientist first realised the potential for hydrolysed gelatin in personal care in the early 1970s, Croda has delivered step changes in biopolymer innovations more often than most of us have changed our hair styles. As they celebrate their Ruby Anniversary, they reflect with pride on the competitive advantage that their specialty protein and cellulose products have brought to their many customers around the world.

40 years ago, Croda was the first to bring cosmetic grade proteins to the industry launching a hydrolysed gelatin powder in 1971. Since then they have pioneered a range of firsts. They developed quaternised protein derivatives with the launch of Crotein™ Q in 1976, they were the first to produce amino acid complexes with the launch of silk and collagen amino acids in 1978 and the first to develop wheat based proteins in 1985. In more recent years, they have led way in the development of high performance protein copolymers to deliver outstanding performance in areas such as strengthening, protection and repair.

Some of the first proteins used in personal care applications were those derived from keratin and collagen. They proved to be especially popular in hair care applications imparting excellent conditioning benefits from rinse off applications. As the trend moved towards plant derived products in the mid 1980s, Croda rapidly expanded its range to incorporate many different products from a number of natural sources. Today their range boasts protein biopolymers derived from a multitude of sources including Brazil nuts, cotton, oats, soya and wheat.

Over the years Croda has also developed patented protein technologies and test methods to deliver true innovation in the proteins arena. Crodasone™ W and Crodasone Cystine use patented silane technology which cross-links on drying to form a thermally activated protective film. These actives offer proven cuticle protection which means that functional claims such as heat protection and protection against combing damage can be made, claims that continue to be popular in the hair care market today.

Using this same technology Croda launched Keravis™ in 2002, a protein complex which acts on all of the three fundamental parameters of hair strength delivering optimal anti-breakage benefits. Keravis has a dual action, penetrating into the hair cortex, building strength from within, whilst providing film forming effects to reinforce, lubricate and protect the surface of the hair. Not only did Keravis prove to be a truly innovative product, the patented Flexabrasion™ technique that they developed to test this material revolutionised the way that the industry assesses hair strength.

As in the world of fashion trends are often cyclical and the personal care market is no exception. In recent years there has been a resurgence of more traditional protein biopolymers in the personal care market driven by the biomimetics trend. An example of this is the resurgence of the use of keratin in hair care applications. Traditionally used in rinse off systems, keratin has become a key ingredient in many hair care applications. It is widely used in hair conditioning masks, strengthening serums, styling balms, relaxers and the keratin enriched semi-permanent straightening systems that are currently on trend. Some of Croda’s high-tech keratin products include Crodasone Cystine, Keratec™ IFP and Crotein WK.

There has also been a growing interest in natural and eco-friendly cosmetics over recent years and the demand for more natural products is set to continue. Croda’s range of protein biopolymers, amino acids and functionalised proteins readily fulfil many green requirements as they originate from natural sources. Hydroavena™ HpO and Hydroexcelsa™ HpO are effective moisturising agents derived from certified organic crops of Brazil nuts and oats respectively, and can therefore enhance personal care products with a natural or organic claim.

Proteins continue to be highly popular cosmetic ingredients, providing functional effectiveness, consumer perceivable benefits and a point of difference. There is a saying that “life begins at 40” and this is also the intention for Croda’s biopolymers. Their dedicated research teams are working on a development pipeline consisting of the some of the most exciting biopolymer products they have yet undertaken. They are looking forward to having much more to celebrate in their next 40 years!