since our patent was filed in 1993 (21). There are many obstacles still to be overcome on the road to clinical success but the indications are positive.

Preliminary studies suggest that these compounds possess low toxicity and many of the desired pharmacokinetic properties. There is plenty of scope for ligand modification and an extensive synthetic programme is enabling new compounds with the potential for better activity to be identified.

Minor chemical modifications are also known to affect activity, thus giving scope for the design of further ruthenium compounds which might be used in the many diverse nitric oxide-mediated diseases. Indeed inorganic medicinal chemistry may provide the key to success in this field of study, where the traditional organic chemistry approach to drug design appears to be struggling; and future prospects appear very encouraging for this potential new addition to the inorganic pharmacopoeia.

**Acknowledgements**

The success of a major project is the result of teamwork. My fellow members of the project team are Drs. Elizabeth Slade, Barry Murrer and Nigel Powell at the Johnson Matthey Technology Centre and Dr. Jean Vollano at Johnson Matthey Biomedical Research, U.S.A. Thanks are due to Dr. F. W. Flitney, University of St. Andrews, Professor M. T. Wilson, University of Essex, and Professor F. Y. Liew, University of Glasgow, and to their colleagues.

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# Platinum and Palladium Convert Biofuel By-product

The search for non-polluting automotive fuels has encouraged a growth in alternative fuels, including biofuels such as ethanol and biodiesel. Several countries already use biofuels and in Europe biodiesel is produced from rapeseed oils, yielding up to 14 per cent of potentially valuable glycerol. Now, R. Garcia, M. Besson and P. Gallezot (*Appl. Catal. A: Gen.*, 1995, **127**, (1–2), 165–176) report that they can orientate the selectivity of glycerol oxidation to oxidation of the primary or secondary alcohol function. A 77 per cent selectivity at 90 per cent conversion to glyceric acid on palladium catalysts, and a 55 per cent selectivity to glyceric acid on platinum catalyst were achieved. A bismuth-platinum catalyst achieved a 37 per cent yield in dihydroxyacetone.