

**Antony F. McDonagh, PhD,  
CChem, MRSC**

Emeritus Adjunct Professor of  
Medicine

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Dr. McDonagh's career narrative.

Downloaded from Authoratory® Web Site. *“Antony F McDonagh is a key opinion leader in the specific area of Bilirubin. This author's rank is 1 when compared to all other authors using the same keyword.”*

Research interests include heme and bile pigment metabolism and toxicity, neonatal jaundice, porphyria, phototherapy, photodynamic therapy, membrane transport mechanisms and stereochemistry.

2007: Recipient of the first Audrey K. Brown Kernicterus Symposium Award for Outstanding Contributions to Research on Neonatal Jaundice. 2008: Cecil J. Watson Lecturer, Department of Medicine, University of Minnesota.

Recent invited talks at International Meetings: 2007, Heme Oxygenases, Krakow; Neonatal Jaundice, Cairo; 2008, Falk Symposium on Bile Acids, Amsterdam; 2008, Biochem. Soc. Dublin & London; 2009, Soc. for Free Radical Biol. Sydney; Gastroenterology Division Journal Club, Canberra.

Three most-cited papers cited 1656, 284 and 204 times, respectively.

**Education**

1959-1962 Royal College of Advanced Technology, Salford,,  
England:,Chemistry.

1962-1966 Vanderbilt University, Nashville, Tennessee; Ph.D. 1967;  
Major field—organic chemistry. Minor fields—biochemistry and pharmacology.

**Training**

1966-1969 University of London, Queen Mary College, London, England.  
Postdoctoral Research Assistant.

**Memberships and Affiliations**

Am. Soc. Photobiology; The Royal Society of Chemistry; AAAS; Am. Chem. Soc.

## Publications (16 Recent Publications From a Total of 169 Items)

1. McDonagh, A.F., Lo, S.F., Maisels, M.J. & Watchko, J.F. Serum bilirubin measurements in hemolyzed samples. *Clin Chim Acta* **412**, 1275 (2011).
2. McDonagh, A.F. Bilirubin, copper-porphyrins, and the bronze-baby syndrome. *J. Pediatrics* **158**, 160-164 (2011).
3. Uc, A., McDonagh, A.F. & Stokes, J.B. Metabolism of haem in Caco-2 cells. *Exp. Physiol.* **95**, 296-303 (2010).
4. Mreihil, K., McDonagh, A.F., Nakstad, B. & Hansen, T.W. Early isomerization of bilirubin in phototherapy of neonatal jaundice. *Pediatr Res* **67**, 656–659 (2010).
5. McDonagh, A.F. The biliverdin-bilirubin antioxidant cycle of cellular protection: Missing a wheel? *Free Rad. Biol. Med.* **49**, 814–820 (2010).
6. McDonagh, A. Controversies in bilirubin biochemistry and their clinical relevance. *Sem Fetal Neonatal Med* **15**, 141-147 (2010).
7. McDonagh, A.F., Vreman, H.J., Wong, R.J. & Stevenson, D.K. Photoisomers: obfuscating factors in clinical peroxidase measurements of unbound bilirubin? *Pediatrics* **123**, 67-76 (2009).
8. Daood, M., McDonagh, A.F. & Watchko, J. Calculated free bilirubin levels and neurotoxicity. *J. Perinatol.* **29 Suppl 1**, S14-19 (2009).
9. Maisels, M.J. & McDonagh, A.F. Phototherapy for neonatal jaundice. *N Engl J Med* **358**, 920–928 (2008 ).
10. Zunszain, P.A., Ghuman, J., McDonagh, A.F. & Curry, S. Crystallographic analysis of human serum albumin complexed with 4Z,15E-bilirubin-IX $\alpha$ . *J. Mol. Biol.* **381**, 394–406 (2008).
11. McDonagh, A.F., Boiadjiev, S.E. & Lightner, D.A. Slipping past UGT1A1 and Mrp2 in the liver. Effects of steric compression and hydrogen bonding on the hepatobiliary elimination of synthetic bilirubins. *Drug Metab. Disp.* **36**, 930-936 (2008).
12. McDonagh, A.F. & Lightner, D.A. Influence of conformation and intramolecular hydrogen bonding on the acyl glucuronidation and biliary excretion of acetylenic bis-dipyrrinones related to bilirubin. *J Med Chem* **50**, 480–488 (2007).
13. Basu, N.K., Kole, L., Basu, M., McDonagh, A.F. & Owens, I.S. Targeted inhibition of glucuronidation markedly improves drug efficacy in mice—A model. *Biochem. Biophys. Res. Commun.* **360**, 7–13 (2007).
14. Boiadjiev, S.E., Conley, B.A., Brower, J.O., McDonagh, A.F. & Lightner, D.A.M. Synthesis and hepatic metabolism of xanthobilirubinic acid regioisomers. *Monatsh. Chem.* **137**, 1463–1476 (2006 ).
15. McDonagh, A.F. Ex uno plures: The concealed complexity of bilirubin species in neonatal blood samples. *Pediatrics* **118**, 1185–1187 (2006).
16. Toietta, G., *et al.* Lifelong elimination of hyperbilirubinemia in the Gunn rat with a single injection of helper-dependent adenoviral vector. *Proc. Nat. Acad. Sci.* **102**, 3930–3935 (2005).