I am cofounder of ABBY, a company developing imipramine blue, a triphenylmethane, for the treatment of glioblastoma.

“Where there is no interest, there is no conflict”

Raymond Schinazi, PhD, co-discoverer of Emtriva
Lauth, C. (1867), "On the new aniline dye, 'Violet de Paris'", Laboratory, 1: 138–139
• Available OTC as 1% or 2% solutions, creams, ointments and pessaries ($2-$6)

• Other names:
  - anergon
  - aniline violet
  - basic violet 3
  - Brilliant violet 58
  - hexamethyl pararosaniline Cl
  - meroxylan
  - pyoktanin
  - crystal violet
  - etc.....
Perry BN et al, JID 2006
Infantile Hemangioma

- Most common tumor of infancy
- Usually absent at birth → appears within 1st weeks of life → undergoes rapid prolif → spontaneous involution of years
- Result in a range of complications, from cosmetic to life threatening
Before and after Gentian Violet to ulcerated hemangioma (1 month of treatment, Leslie Lawley, M.D.)

Gentian violet downregulates Angptl4
Proof of concept using Triphenylmethanes in Humans (Gentian violet Plus imiquimod)

Hypothesis: Combining Imiquimod (TLR7 agonist, Interferon inducer) with Gentian violet (NADPH Oxidase inhibitor) will result in superior immune response than imiquimod alone

Regression of diffuse B-cell lymphoma of the leg with intralesional gentian violet.

Rao S, Morris R, Rice ZP, Arbiser JL.

Figure 1: Primary Cutaneous Diffuse B-cell lymphoma, leg type: Clinical appearance of the patient at presentation a), and lesion at four months follow up b)
Treatment of recalcitrant mycosis fungoides with topical gentian violet
Anti-inflammatory effects of gentian violet in humans

Journal of the American Academy of Dermatology
Volume 63, Issue 3, September 2010, Pages 537-539
Generation of reactive oxygen species results in activation of NFκB, Akt and suppression of wild type p53. In addition, SOX-2 may increase the production of immunosuppression factors.
In Vitro Studies (Glioblastoma in Rats) - Delivery of NANO-IB Before DXR Yields Increased Survival

Anti-Invasive Adjuvant Therapy with Imipramine Blue Enhances Chemotherapeutic Efficacy Against Glioma

Science Translational Medicine 28 Mar 2012:
R-Propranolol has antitumor activity in vivo

Summary

- GV has been used for many years
- Antimicrobial/antimycotic actions are well documented
- Discovery of GV as NADPH oxidase inhibitor leads to use as anti-inflammatory and anti-tumor agent
- Novel uses for the future……..novel delivery modes
- Precursor to systemic NADPH oxidase inhibitors for cancer and inflammation