The related publications are for the Sun Pharma Award is:

1. ***"Multielemental Analysis and In Vitro Evaluation of Free Radical Scavenging Activity of Natural Phytopigments by ICP-OES and HPTLC"*** published in Frontiers in Pharmacology which is **the 2nd most-cited open-access** Pharmacology & Pharmacy journal in the world with an **impact factor 0f 5.810.**
    - The phytopigments derived from ethnomedicinal plants employed as traditional medicines appear to be the simplest alternative for artificial radical colorants.
    - This can be because of persistent use of synthetic dyes and their harmful impacts linked to human lives as well as to the ecosystem.
    - The literature evidences clearly reveal the complications from growing demands of radical colorants from artificial origin. The planned analysis work hence focuses on screening of the fundamental composition of phytopigments, obtained from plant sources by subtle technique of ICP-OES, with axial plasma combined with nebulizer motor-assisted gas flow approach, utilizing microwave digester for complete digestion of phytopigments, thereby establishing the pigments being safe for consumption.
    - Additionally, the observations from free radical scavenging activity using DPPH by HPTLC concluded that the natural pigments obtained from plant sources are rich in flavonoids with potent antioxidant property.
    - Thus, an effort has been made through the developed ICP-OES methodology, to beat the distinct imprecise practice of food labelling, once natural pigments are utilized in a variety of additives, as food colorants with amounts of components detected as arsenic, lead, and metal, within specified limits of FSSAI, demonstrate and establish safety of natural foodstuff agents, as compared over hazardous synthetic azo dyes.

2. **"A Novel USP-HPTLC Protocol Compliant Method For The Simultaneous Quantification Of E-102, E-124, And E-133 Azo Dyes In Consumer Goods" published in JPC–Journal of Planar Chromatography.**

- Azo dyes, in spite of being additives, are indeed an integral constituent of consumer goods with bio-therapeutic values. The addition of dyes is for consumer compliance which lends a sense of pleasing aesthetics to the consumption ready product, "a kind of placebo effect".
- Consequently, imperative need of the hour is felt to quantify such azo dyes due to complications like skin allergic reactions, genotoxicity, and ADHD symptoms leading to carcinogenicity in the long run, by apt analytical technique. In the proposed research, a pivotal USP-HPTLC compliant, validated, digitized method with multiple wavelength detection using TLC silica gel 60 F_{254} aluminum plates is developed. Mobile phase comprising of *n*-butanol–isopropanol–25% ammonia (GR grade)–water (65:20:10:5, *v/v*) has been put to task and subjected to spectro-densitometric scan for their simultaneous screening and quantification.
- Validation was done as per ICH and US FDA guidelines incorporating the latest 21 CFR approved, digital image CAMAG visionCATS software. The results revealed that the proposed method was highly sensitive with good linear relationship $R = 99.999\%$ and RSD of 0.456%.
- Thus, the method may be employed as standard quality control tool in consumer goods for characterization of azo dyes, which are still in the spectrum of doubt especially given the opaque data that surfaces on their safety profiles.