

AAiPS

Newsletter



AMERICAN ASSOCIATION
OF INDIAN PHARMACEUTICAL SCIENTISTS

P.O. Box 7244
Colonia, NJ 07067

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Newsletter Editor: Rashmi Pai-Thakur

Editorial Committee: Krip Bohrah; Uday Doshi; Mike Yelvigi

PRESIDENT'S MESSAGE

Dear Members,

The new 2010 year began with a bang at our first regional meeting on April 1st and with presentations venturing into new areas beyond just formulations. We had an outstanding presentation by Dr. Anthony Hickey, Professor of Molecular Pharmaceutics, at University of North Carolina and our very own EC member-at-large (full details provided later in the Newsletter). We are also looking forward to our next presentation in June by EC members: Dr. Vijay Tammara, Director, Merck and Dr Rajesh Krishna, Director, Merck on " Lifecycle Management: Regulatory and Clinical Strategies for 505(b)(2) filings ". We want to thank Chrai Associates for sponsoring both of our regional meetings and Rupa Doshi, Chairperson Program Committee for overall coordination. The Washington DC Chapter, headed by Praveen Hiremath has also lined up a speaker and arranging regional meeting in the summer. Later in the year, we will be holding joint meeting with NJPHAST and EPTM. Stay tuned.

We have gone green and published our first Newsletter on the Web. Proposals from web-designers on improving the "www.aaiips.org" web-site have been received by Uday Doshi, VP, and under review by the EC committee. A new budget

was approved to provide increased funding for improving the web-site as well as increasing membership by looking into opportunities for new Medias to advertise AAiPS, e.g. Facebook, Linked-In, etc. The team is developing innovative ideas on the expanding the base via emerging disciples in India. Next year, we are expecting AAiPS co-sponsored program with AAPS in India, led by Rajesh Krishna, EC member-at-large. Our members-at-large EC team is also developing a new "Vision" for the organization. Our Secretary, Laura Yelvigi, is leading to develop new student chapters and establishing collaboration with local university fellowship programs

Planning for the Annual Meeting in November has been initiated led by Mike Yelvigi, B. Kamath, Sanjeev Gupta and Rupa Doshi. More information - in the next Newsletter from Rashmi Thakur. Vijay Naringrekar is busy leading the Awards committee and his team will be announcing the winners in November.

AAiPS is your organization and I encourage all members to participate at the regional meetings and get involved in any way you can.

Best wishes.
Mohan Kabadi

FAMOUS QUOTES

"There is real magic in enthusiasm. It spells the difference between mediocrity and accomplishment."
- Norman Vincent Peale

"There is no paycheck that can equal the feeling of contentment that comes from being the person you are meant to be."
-Oprah Winfrey

PLAN ON ATTENDING OUR NEXT REGIONAL MEETING

PLEASE NOTE OUR NEW LOCATION

TOPIC: Lifecycle Management: Regulatory and Clinical Strategies for 505(b)(2) filings

SPEAKERS:

Vijay Tammara, Ph.D., FAAPS, Director, Merck

Rajesh Krishna, Ph.D., FCP, FAAPS, Director, Clinical PVE, Merck

AGENDA:

SOCIAL HOUR

5:30 PM

SEMINAR

6:30 PM

DINNER

7.30 PM

VENUE:

**Crown of India Restaurant,
Princeton Meadow Shopping Center
660 Plainsboro Road,
Plainsboro, NJ 08536-3002
Tel: (609) 275-5707
www.crown-of-India.com**

Save the Date: June 18th, 2010

REGISTRATION:

**Before June 14th - Special rates for those registering and paying online: at
register@aaips.org**

Members - \$30 and Nonmembers - \$35

After June 14th and walk-ins: Members- \$40 and Nonmembers- \$45 Students: \$20

For more information, call: Uday Doshi (973)-385-2057 (udaydoshi@aol.com)

**HIGHLIGHTS OF AAIPS REGIONAL
MEETING, NEW JERSEY,
APR 1, 2010***Review by: Mike Yelvig*

Anthony Hickey, Professor of Molecular Pharmaceutics at University of North Carolina, made a timely presentation on “Inhaled Vaccines for Tuberculosis Prevention” at the April 2010 AAiPS regional meeting in NJ. It was very interesting presentation as it dealt with developing vaccine therapies for Global Tuberculosis (TB). TB is one of most dreaded diseases in the world, affecting 2 billion people with latent TB infection and killing more than 2,000,000 people annually. Each year, 7-8 million people develop active TB. It is a leading cause of death from an infectious disease, with emergence of multi-drug resistant TB and worsening of TB-HIV epidemic. It is also preventable with appropriate vaccines.

Tony reviewed the physiology and immunology associated with the respiratory tract as well as the use of adjuvant in the vaccine formulations, delivery systems, and devices. The respiratory tract delivery system technologies include the classic liposomes, spray –freeze dried particles and microparticles as well as novel spray dried micro and spray dried nanoparticles which can be highly engineered to be delivered and retained in the deep spaces of respiratory tract. He gave examples of the formulation as well as the physical, chemical and biological testing aspects of the inhalable products. Many types of adjuvants are available and are used to enhance the efficacy of the vaccines. These particles inhalation are delivered by active devices, e.g. nebulizers or passive meter dose (MDI) and dry powder inhaler (DPI) devices with the cost comparable to needle and a syringe. One of the vaccines that have a potential to

be delivered to the respiratory tract is BCG (bacille Calmette-Guerin) used in TB vaccination and it is currently under development at Medicine in Need in Cambridge, MA. Currently approved BCG product has poor efficacy profile therefore must be refrigerated and injected using a needle syringe which is a problematic in the developing countries. The inhalable form of BCG has shown potential for better efficacy (based on animal work) and may not require refrigeration or needles for delivery. The following can be concluded: the respiratory tract has promise as a route for immunization; the readily accessible mucosa is a site of important elements of the immune system required for defense against disease; a number of vaccines exist or are under consideration for administration by the respiratory route and these include diseases not associated with the lung as a route of infection, e.g. measles, diphtheria, plague, hepatitis as well as lung associated diseases, e.g. tuberculosis, tularemia, whooping cough, influenza, RSV, etc. However, he noted that consideration must be given to the potential to induce a non-specific immune response in the lungs that may result in inflammation and toxicity, when vaccines are given by inhalation.

**SEARCHING FOR A SILVER
BULLET, MISSING A GOLDEN
OPPORTUNITY***Krip Bohrah – contributing editor*

Recently going through several scientific journals a certain news item caught my eyes. It said nearly 300 million people around the world suffer every year from malaria and nearly 1 million die, mostly children under the age of five. The highest mortality is in Africa and some in Southeast Asian countries including India, Bangladesh,

Myanmar, Indonesia and other neighboring countries. Five to six decades ago people suffering from malaria were prescribed quinine sulfate in solution as a mixture with other ingredients to make it somewhat palatable. In those days quinine an alkaloid from cinchona bark was the only remedy for malaria. But over the years many synthetic anti-malarial drugs have been made available by the pharmaceutical companies. Presently nearly a dozen such drugs are available to combat malaria. But unfortunately over time they have become ineffective as the malarial parasites have gradually become resistant. Out of the four malarial parasites, Plasmodium falciparum is most resistant and is the cause of most malarial mortality.

For the last few decades the drug which has been most effective is Artemisinin which is found in the plant Artemisia Annuia also known as Sweet Annua. The plant grows in different parts of the world but extensively in China. There has been an active search to find synthetic analogs of Artemisinin and other novel structures. Such drugs are being marketed by Novartis and Sanofi-Aventis. Attempts for the total synthesis of Artemisinin are under way and a biosynthetic method has been found to synthesize a precursor of Artemisinin, namely Artemisinic acid, but it will take many years till an industrial manufacturing process is finalized. Recently it has been reported in the British medical journal Lancet that a new strain of the malarial parasite has been detected in the Cambodia/Thailand region and there is an apprehension that this strain of drug resistant parasite may spread rapidly before an effective remedy can be found resulting in greater fatality. When any one of the four malarial parasites infects the human body it takes its first refuge in the liver. Thereafter it goes through four transformative stages in

the human body and bursts itself into the blood stream causing high fever and if not treated timely may result in death. Here it is interesting to mention that the protein molecule in the malarial parasite with time recognizes the chemical groups it would bind with on the drug molecule and therefore manages to hide those groups in such a way as not to get bound to the drug molecule. That's how they try to cope with our discovery scientists.

Reading through some of the articles what came to my attention that people living in the interior villages in different countries in Africa or Southeast Asian countries, when adults and particularly children get high fever they are given a tea to drink, which is a mixture of several herbs. Once their fever somewhat subsides they go to the nearest medical clinic which may be many miles away where on examination they are detected to have malaria and treated accordingly. The information on the different herbs used to make the teas have been known to the people for many years if not centuries. Such was the case with Artemisinin in Artemisia Annuia plant. It has been further reported that there are over 1200 different herbs or plants distributed all over the world and in some countries like India who have 65, South Vietnam 46, French Guiana 32 and the list goes on. The people who use these herbs as mixtures in teas do not have any modern scientific background. All they know is from hearsay or from actual experience. Such mixtures of several herbs always have synergistic effect. Many US patents have been issued on combination of herbs on their synergistic effect. In such patents quantitative scientific data have been presented on the effect of the different herbs used in combination and the same herbs used individually, thereby proving that the combination of the herbs works many times better than they being

given individually. Such herb combinations have been used to demonstrate usefulness in hyperglycemia, hyperlipidemia, hypercholesterolemia and hypertension. In this connection it is worth mentioning that in the early 1990's at a certain AAPS annual meeting, the keynote address was on AIDS. The speaker in his presentation stated that in their treatment for AIDS they have been giving AIDS patients several drugs at a time as a cocktail totaling about 22 tablets a day. The emphasis was as a cocktail of different drugs. They could thereby improve the quality of life of those patients and extend their longevity. The symposium opened up minds of the audience on combination drug therapy.

There are many non-profit organizations that have extensive development programs together with several pharmaceutical companies and health care organizations including the academia. The total amount of funds allocated for the next several years is in the range of 8-10 billion US dollars. Some of the organizations named in the different articles are, The Global Fund to fight AIDS, Tuberculosis and Malaria (GFATM), WHO, UNICEF, The World Bank, Gates Foundation, Roll Back Malaria (RBM) and Multilateral Initiative on Malaria (MIM). Several pharmaceutical companies have offered no less than 15000-20000 compounds from their compound banks with the hope that some might turn out to be effective in fighting malaria. Surprisingly none of the international organizations have any comprehensive global development program to investigate all the 1200 and odd herbs or plants which may be useful in the fight against drug resistant malarial parasites. At a symposium some years ago a paper was presented using herbs in combination. The speaker mentioned about a specific selective process how the different herbs could be combined to get the best therapeutic effect.

For a certain indication a specific part of the plant is considered as useful and not the whole plant. In such cases it is specifically the leaves, flower, seeds, roots, or fruits that are useful and not the whole plant. The selective process was described and following that process the combination of those herbs resulted in the best therapeutic result. In such a selective process the seeds from a certain plant were mixed with leaves of another plant and the roots of yet another plant and so forth. But all the different parts were known to have the same therapeutic effect. In a like manner such a concept was applied to different herbs or plants in different countries in the world and thereby created a global biodiversity concept. In the case malaria also such a concept may be applied and solvent extraction of such herb combinations can be prepared. Such extracts can undergo if possible in vitro testing. This way it may be possible to find a remedy more quickly. Such an effort may result in several successful combination products. They could be formulated into successful pharmaceutical dosage forms using appropriate drug delivery systems. Several such products may be effective against drug resistant malarial parasites. If in AIDS treatment multiple drug combination is an indication, the combination of various herbs may be effective in fighting drug resistant malarial parasites. In one of the articles it is mentioned that the extracts of Artemisia plant and Cinchona bark extracts in combination appeared to be more effective in drug resistant malarial parasites compared to extracts alone. The combinations which prove effective against the drug resistant parasites can be further investigated. The herbs or plants in the combinations can be individually examined and the ingredients can be separated and identified with the help of modern scientific methodologies. They can then undergo in vitro testing and if

effective can be placed in a new drug development program. Such a procedure may help find an effective drug in a quicker way and certainly help fight the fatality in malaria. How such a plan works out is an open question. But it is definitely worth studying.

INDIAN PHARMA NEWS

Anil Gandhi

1. Net profit of Indian pharma companies to zoom by 50% in 2009-10

Based on a Pharmabiz analysis of leading 25 pharmaceutical companies for the nine months period ended December 2009, the overall growth in consolidated revenues for the current year is likely to be 10 to 14 percent and growth in net profit by over 50 per cent on account of lower foreign exchange losses and other adjustments in the current year. However, the earnings before interest, depreciation, taxation and adjustments for the year 2009-10 are likely to go up by 13 to 15 per cent. The unaudited results of 25 leading companies selected by Pharmabiz with consolidated net sales above Rs 500 crores, achieved net sales growth of 11.9 per cent during the first nine months ended December 2009 to Rs 41,619 crores from Rs 37,185 crore in the corresponding period of last year. Study included only those companies having year ending in March and therefore could not include a few major companies like Ranbaxy, Wockhardt, GlaxoSmithKline Pharma, Aventis Pharma, Pfizer, Abbott India, Stride Arcolab, Sterling Biotech. Dr Reddy's Laboratories remained on top with consolidated net sales of Rs 5,283 crore during the nine months ended December 2009 as against Rs 4,862 crores in the same period of last year indicating a relatively

lower growth of 8.7 per cent. Cipla, the second largest company among the sample, also reported single digit growth of 8.1 per cent to Rs 4,041 crores from Rs 3,738 crores. Lupin climbed to third spot, keeping Sun Pharmaceutical behind, with strong net sales growth of 26.5 per cent to Rs 3,456 crores from Rs 2,733 crores. Sun Pharmaceutical received a setback due to US FDA action against Caraco, a US based subsidiary, and its consolidated net sales declined by 4.6 per cent to Rs 2,994 crores from Rs 3,138 crores.

2. Bharat Bio to pump in Rs 250 crores for vaccine facility expansion

Hyderabad based vaccine major Bharat Biotech International Limited will invest Rs. 2.5 billion to take its range of vaccines like rotavirus, typhoid, malaria Japanese encephalitis, chikungunya and seasonal influenza for clinical trials. Expansion slated Rs. 750 million for setting up a new manufacturing facility for these vaccines. The company has also managed to deliver its one billionth vaccine dose which demonstrates its efforts as a global manufacturer of vaccines to protect against rabies, polio, hepatitis-B, typhoid, diphtheria, pertussis, tetanus, haemophilus influenza B and other diseases. The future growth strategy at Bharat Biotech will be a combination of high volume WHO pre-qualified vaccines and innovative novel vaccines catering to the needs of developing world populations. It has now one of the largest production capacities as it can deliver 100 million doses of Hepatitis-B, 50 million of Typhoid Vaccine and 8 million doses of Rabies in addition to COMVAC-5.

3. India's clinical expertise & quality of sites impress CDER, US FDA: Dr Steve Wilson

India's clinical acumen and quality of healthcare infrastructure designated to conduct human studies are two key parameters which have impressed US FDA officials. The country is an important destination for clinical trials not just for a patient pool but the expertise which it has armed with in terms of personnel and hospital sites, said Dr Steve Wilson, director of Division Biometrics III, Centre for Drug Evaluation and Research, US FDA.

4. Biovel Lifesciences may be bought over by Ranbaxy for about Rs. 50 crores

Biovel Lifesciences, a bio pharmaceutical start-up venture, is all set to be acquired by Ranbaxy. The final deal is yet to be inked and the value of the deal could be around Rs 50 crores. The Bangalore-based start-up Biovel was an Indo-US joint initiative, commissioned operations in mid 2004. The operations came into being with an Rs 50 crores investment for the phase-1 of the project and Rs 70 crores was earmarked for its phase-2 expansion in 2009. It is planned to offer contract research and manufacturing service (CRAMS) orders from both India and regulated markets. The unit includes pilot plant equipped with a 19 liter fermentor, lyophilizer, down steam process equipment and filling machine was set up to produce samples for initial market tests and clinical trials.

5. Union govt earmarks Rs.450 cr for 2 bio-cluster projects in NCR, Bangalore

The Department of Biotechnology (DBT) has set apart nearly Rs 450 crores for setting up two bio-cluster projects to be located at Faridabad in the National Capital Region and Bangalore. Over the next 10 years both these clusters together are expected to absorb an investment of over Rs. 1,000 crores. Another cluster planned at Mohali in Punjab will have an agri-biotech focus. Shrikumar Suryanarayan, CEO, NCR Health BioSciences Cluster told Pharmabiz in a telecon. Faculty from the National Institute of Immunology, New Delhi Harvard MIT Health Science and Technology Institute (HST), Cambridge, (Boston) USA are closely involved in designing and setting up the NCR Biocluster. However, it will shortly commence operations from interim facilities at Gurgaon. The Bangalore bio-cluster will comprise of Stem Cell Research Institute and Centre for Cellular and Molecular Platforms (cCAMP). Professor K Vijayraghavan, director, NCBS is overseeing the development of the cluster.

6. National Institute of Biomedical Genomics to become operational from April 2010

The National Institute of Biomedical Genomics (NIBMG), being established under the National Biotechnology Development Strategy to provide basic research evidence using biomedical genomic approaches for betterment of public health programmes and services will be operational from April this year. NIBMG director Dr Partha Majumder said that the main objective of the institute is to promote better public health in India by conducting large genetic epidemiological studies on Indian

populations on diseases of importance in India, including susceptibilities to infectious diseases and responses to vaccines against infections.

7. Biotech companies in the UK are keen to enter into collaborations with India, especially in the areas of pre-clinical and marketing services

Six companies Stabilitech, Ionscope, Antoxis, Karus Therapeutics, Oxford Biomedica and Chroma Therapeutics are here in India to scout for opportunities with Indian companies. The companies are part of the Bioindustry Association (BIA) delegation to initiate the first round of talks with Indian life sciences majors. The life sciences market comprising medical biotechnology and medical technology and industrial biotech in UK is valued at £15 billion. Expertise of companies is in small molecules, therapeutic proteins, advanced therapy medicinal products, antibodies, vaccines and blood-tissue products. The pharma sector has 600 companies with a turnover of £16 billion. The company which holds several patents for SICM has already inked pact with marketing companies and high-end instrumentation distributors in UK, US and China. It has manufactured 18 products and sold three in US, two each in UK and China. The demand and awareness of the technology has created a market for the novel product which is priced at £90,000.

8. Intas Pharma to introduce world's first Interferon Lozenges in tablet form for flu in India

Following the recent license and supply agreement signed between Amarillo Biosciences Inc. (ABI), a US biotechnology firm, and Intas Pharmaceuticals, Intas will

soon market world's first Interferon Lozenges (tablet form) in India. Unlike vaccines, Lozenges (tablet form) has outstanding safety profile with minimal side effects at a much affordable price. The drug contains interferon, a protein, which is produced by the body naturally to fight infections. Intas has submitted the required technical documents to Drug Controller General of India (DCGI) for authorization of conducting clinical trials. Intas will pay ABI a royalty on net sales in India and Nepal after marketing approval is obtained.

9. Avesthagen begins manufacturing anaemia biosimilar drugs at Inno Biologics, Malaysia

Avesthagen sends first batch of cell lines for cGMP production of Clinical grade biosimilars to Inno Biologics, Malaysia. Avesthagen Limited, a leading systems biology biotechnology company headquartered in Bangalore, India announced the commencement of the manufacture of two of its biosimilars at Inno Biologic's Putra Nilai facilities in Malaysia. Avesthagen has built a robust pipeline of eight Biosimilars of which four are in an advanced stage of development. The first product for anaemia, AVDESP™ has already completed preclinicals and is ready for cGMP manufacturing for conducting clinical trials in India. The second biosimilar for auto-immune disorders, AVENT™, will also be produced at the Inno Biologics facility. Inno Biologics has been contracted to produce clinical grade material of Avesthagen's biosimilars, which will be used for human trials.

10. The Hyderabad-based MSN Labs is building a new R&D facility

The company has acquired about five acres of land for this Greenfield facility and it will be utilized for both API's and the formulation. The R&D facility will be ready in about two years and the centre will host more than 350 scientists/chemists. The company has made the investment of Rs 2 crore till now from the time the work started in October 2009. According to Bharat Reddy, executive director, "Our technology development centre will have close to 40 labs (process chemistry, process engineering, formulations). Apart from that we will have kilo labs and pilot plants. This will be a complete Green building." Apart from the R&D centre, the company is also investing on a new formulation facility in the SEZ area in Hyderabad. The company informed that they would start working on this project by end of 2010-11 or beginning of 2011-12. The tentative capacities of the formulation facility will be two to three billions units.

TIPS FOR A SUCCESSFUL JOB HUNT

A recent article in Yahoo!Finance seems to quote this to be the secret of a successful job hunt. Searching for employment is a daunting task these days, not because of dearth of resources but because of a dearth of jobs. Gone are the days when you could just send out your resume and wait for the human resources to call you. Looking for the right assignment and then getting one is a job by itself. There are many 'unique' candidates with matching set of skills waiting in line and you need to be one-up to be even noticed. Hence, being on a job hunt is a lot like being a gardener: you must plant many seeds, because you never know which green shoots will surface.

There are three resources for a successful search

1. Networking - the media for informal advertising
2. Internet - the largest media for formal advertising
3. Events

Below is a short description of the above resources that will help you in your task.

Start with Your Own Contacts: Make a list of all your closest colleagues, college buddies and past employers. Send your contacts a copy of your resume and ask to network with them and do not hang up the phone till they have given you at least one lead.

Career fairs: Attending career fairs and conferences is a great investment of time and effort. You can network directly with the hiring managers and send out multiple resumes in a single day. It is also a very good avenue for creating a database of contacts. If you still live close to your alma mater, you may be able to go to career fairs sponsored by the university.

Biospace, a job resource website, holds career fairs all round the nation all through the year. Devicespace holds career fairs for medical device job openings. For more details on these fairs, visit <http://www.biospace.com/jobs/career-fair/>

Network, network, network: Never underestimate the power of connecting with people. Though you may not land a job immediately by networking, it has long term benefits. It helps you meet hiring managers and gives you an opportunity to informally discuss your interest and expertise minus the stress of a job interview. Your chances of being considered for a potential job jump

multifold when you meet face-to-face with the manager and are able to show initiative by just approaching them. However, be sure to exhibit promptness and efficiency in keeping in touch with your new contacts after the meeting is over. Affiliation related networking is also a proven way to connect successfully. Associations such as the American Association of Pharmaceutical Scientists (AAPS), American Association of Indian Pharmaceutical Scientists (AAiPS), Controlled Release Society (CRS), local pharmaceutical scientist chapters such as New Jersey Pharmaceutical Association for Science and Technology (NJPHAST) are some examples of professional organizations that hold conferences, quarterly meetings and also have job postings on their websites.

Research employment websites on-line: Websites like Monster.com, Career Builder, Sciencecareers.com, Simplyhired.com and Yahoo Hot Jobs are also good places to find jobs. If you already have a company in mind, most companies provide on-line job applications or contact information on their website. For pharmaceutical openings, there is also medzilla.com and careers.FINDPHARMA.com. Many of these websites also have excellent and informative forums for discussion and career guidance/counseling.

Online networking: LinkedIn has evolved as one of the premier online networking sites. It offers free membership for basic networking and variety of other advanced networking features for a price. Placement consultants regularly screen LinkedIn for potential candidates. LinkedIn allows you to create a profile with your work history, skill set, intentions, interests, etc. in order to help establish your “connections” with similar working professionals in your industry. It also provides company information, job

postings and forums. If you have not already done so, you should strongly consider opening a LinkedIn profile whether you are or are not looking for a job. Other websites for networking include Facebook which can be both formal and informal. It is a good way to get in touch with Gen X and Y candidates and former colleagues.

Using headhunters, employment agencies: This is a very effective way of getting interviews especially in areas of special expertise when not too many companies are in that business. Last but not least,

-Remember to be forthright when approaching people whether online or at a networking event.

-Company websites are the best places to find jobs in big pharma and headhunters are most effective when it comes to mid- and small- size pharma.

-Do not hesitate to take up short term assignments even if they are not in your area of interest. Companies post such vacancies online, even on websites such as craigslist.com!!

JOB OPENINGS

If you are looking for a job or want to advertise a job, send the editor an email at thakurrashmi@gmail.com and we will post your requirements/credentials in the career section we intend to create on our website.

PEOPLE ON THE MOVE

This forum is a great platform for informing every one of recent changes in your professional life. If you have moved to a new job or need to update contact information, email us and we will post it.

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The rates of advertisement for the AAiPS newsletter are as follows:

One year (four issues): \$1000 full page, \$500 half a page, \$250 quarter page

One time (one issue): \$400 full page, \$200 half a page, \$100 quarter page.

Contact: Ramesh Raikar
rraikar5@yahoo.com

No advertisements under a quarter page

Opinions expressed in this newsletter belong solely to the authors, and do not represent the views of AAiPS or its members.

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