The Israel Society of Dermatology was established in November 1927 and on the same day held its first conference, which was devoted to fungal diseases, mainly ringworm. At that time 13% of Jewish schoolchildren and 25% of Arab schoolchildren suffered from ringworm. Prof. Arye Dostrovsky was elected as the first President of the Society.

Prof. Arye Dostrovsky – The “father” of dermatology and venereology medicine in Israel [Figure 1]

Arye Dostrovsky was born in 1887 in the village of Kiro (Crimea, Russia) and attended the Jewish Gymnasium (high school) in Odessa. He studied medicine in Vienna, graduating in 1914, and in 1917 completed his specialization in Dermatology and Venereology in Petrograd. In 1912 he visited Palestine. In 1919 Dostrovsky immigrated to Palestine on the ship Roslan (on the same boat was the noted poet Rachel). Waiting for him on the beach was his brother’s son Yaakov, who later became known as Lieutenant General Yaakov Dori, the first Chief of Staff of the Israel Defense Force.

Israel’s first Department of Dermatology and Venereology – Meir Rothschild Hospital (Hadassah), Jerusalem [Figure 2]

The Meir Rothschild Hospital, established in June 1854 and later called Hadassah, was the first hospital in Israel to have a department of dermatology. In 1913 the department was housed in a rented structure adjacent to the hospital but in 1919 was moved into the hospital building. During the period 1920–1956 Prof. Dostrovsky served as director of the Department of Skin and Venereal Disease at the Hadassah Hospital. He was also the first dean as well as the first professor at the medical school in Jerusalem. In addition, he served as the director of the Hansen Hospital in Jerusalem, and was one of the first settlers in Rehavia, a Jerusalem neighborhood. He wrote the section on Dermatology in the Hebrew Encyclopedia and was a pioneer of psoriasis treatment at the Dead Sea. Prof. Dostrovsky died in 1975. Table 1 lists the department heads from its inception until the present.

Table 1. Department heads at Meir Rothschild-Hadassah Hospital, Jerusalem

<table>
<thead>
<tr>
<th>Period</th>
<th>Department head</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920–1956</td>
<td>Prof. Arye Dostrovsky</td>
</tr>
<tr>
<td>1956–1978</td>
<td>Prof. Felix Zagher</td>
</tr>
<tr>
<td>1978–1982</td>
<td>Prof. Haim Cohen</td>
</tr>
<tr>
<td>1982–1983</td>
<td>Prof. Zvi Even-Paz (temporary)</td>
</tr>
<tr>
<td>1983–1986</td>
<td>Prof. Karl Holubar</td>
</tr>
<tr>
<td>1987–1995</td>
<td>Prof. Sidney Klaus</td>
</tr>
<tr>
<td>1995–present</td>
<td>Prof. Arieh Ingber</td>
</tr>
</tbody>
</table>

Department of Dermatology and Venereology – Hadassah (Tel Aviv) and Ichilov Hospitals in Tel Aviv [Figure 3]

From 1940 to 1963 Prof. Haim Berlin served as department director. The Berlin sign – pain on pressure of discoid lupus lesions on the scalp – was described by him and therefore carries his name.

In 1963 the department was headed by Prof. Friedrich Raubichek who held the position for less than a year (he died of pancreatic cancer). Prof. Adolf Tager served as department director from 1964 through 1967, followed by Prof. Anatol Krakovsky, who after 10 years transferred to Ichilov. He held the position until 1988 when Prof. Sarah Brener took over and is still department director.* Table 2 lists the department directors.

Table 2 lists the department directors.

* Despite considerable effort on my part, I was unable to locate any details regarding the first three department directors.

History of Dermatology and Venereology Medicine in Israel: The “Founding Fathers”

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Key words: history, dermatology

Dermatology
Prof. Anatol Krakovsky

Prof. Krakovsky was a scion of a prominent rabbinic family. His grandfather, Rav Menachem Krakovsky, was the Magid* of Vilna and the author of several important words, including Erez Levanon (Cedar of Lebanon), a commentary on the Bible, and Avodat Hamelech (Works of the King), a commentary on Maimonides. Rabbi Joseph Dov Soloveichik of Boston, one of the greatest rabbis in the U.S., was his father’s cousin. Prof. Anatol Krakovsky was born in Vilna in 1924, and in 1943, during World War II, joined the Partisans. After the war, in 1945, he began his medical studies in Poznan but a year later moved to Geneva, graduating in 1951. He specialized in Dermatology with Dr. Rudolph Ber and eventually immigrated to Israel in 1955 where he began working in the Department of Dermatology at Tel Hashomer Hospital under the tutelage of Prof. Ziperkowsky. In 1967 he was appointed head of the Department of Dermatology and Venereology at the Hadassah and Ichilov Hospitals in Tel Aviv. He died in December 2002.

Prof. Krakovsky was an excellent dermatologist, an exceptional teacher, and extensively literate. He had a very broad education and a charismatic personality, and was a close personal friend of leading dermatologists throughout the world at that time. His efforts succeeded in greatly advancing the field of dermatology and venereology in Israel.

Department of Dermatology – Tel Hashomer Hospital

The Department of Dermatology at Tel Hashomer Hospital was opened in 1950 in building No. 19 at Tel Litwinsky. The first department director was Prof. Leo (Arye) Ziperkowsky, an army doctor who held the rank of Lieutenant Colonel. He directed the department from 1950 until 1970. It was he who described the Ziperkowsky-Margolis syndrome. Prof. Miriam Shevach-Milet took over as acting department director from 1970 to 1973 when Prof. Benny Fisher became director of the department, a position that he held for three years. Prof. Miriam Shevach-Milet returned to head the department from 1979 to 1992, and was succeeded by Dr. Haim Trau who still holds the position [Table 3].

Prof. Leo (Arye) Ziperkowsky

Prof. Ziperkowsky was born in 1909 in Greivo, Russia. From 1932 to 1934 he studied medicine in Bonn, Germany, but due to the rise of the Nazi regime in 1934 he immigrated to Palestine. In 1936 he traveled to Basel, Switzerland where he completed his medical studies. In 1938 he returned to Palestine, enlisted into the British Army and specialized in Dermatology and Venereology in Alexandria, Egypt. He then took up a position as an army physician in Her Majesty’s Armed Forces. In 1950 he established the Department of Dermatology and Venereology at Tel Hashomer Hospital. During the 1960s he was appointed Professor of Dermatology and Venereal Diseases at the Tel Aviv University School of Medicine which was founded at that time.

Prof. Ziperkowsky belonged to the founders generation of dermatology and venereology in Israel. In 1948, together with Professors Sheba, Heller and Padeh, he founded Tel Hashomer Hospital. He was also responsible for the building of the first auditorium at Tel Hashomer. He died in 1971.

Department of Dermatology – Beilinson Hospital, Petah Tikva

The Dept. of Dermatology and Venereology at Beilinson Hospital was opened in December 1957 and was headed by Prof. Itzhak Katzenelenbogen until 1968. Prof. Katzenelenbogen immigrated to Palestine six months after Prof. Dostrovsky, in 1920. In 1968 Prof. Eliezer Feuerman took over as department director until 1985. In 1986 Prof. Miriam Zandbank was appointed department director and held the position until 1992. In 1993 Prof. Michael David took over, and is presently department head [Table 4].

Table 2. Department heads at Hadassah Hospital, Tel Aviv

<table>
<thead>
<tr>
<th>Period</th>
<th>Department head</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940–1963</td>
<td>Prof. Haim Berlin</td>
</tr>
<tr>
<td>1963–1964</td>
<td>Prof. Friedrich Raubichek</td>
</tr>
<tr>
<td>1964–1967</td>
<td>Prof. Adolf Tager</td>
</tr>
<tr>
<td>1967–1988</td>
<td>Prof. Anatol Krakovsky</td>
</tr>
<tr>
<td>1988–present</td>
<td>Prof. Sara Brener</td>
</tr>
</tbody>
</table>

Table 3. Department heads at Tel Hashomer Hospital

<table>
<thead>
<tr>
<th>Period</th>
<th>Department head</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950–1970</td>
<td>Prof. Leo (Arye) Ziperkowsky</td>
</tr>
<tr>
<td>1973–1976</td>
<td>Prof. Benny Fisher</td>
</tr>
<tr>
<td>1979–1992</td>
<td>Prof. Miriam Shevach-Milet</td>
</tr>
<tr>
<td>1992–present</td>
<td>Dr. Haim Trau</td>
</tr>
</tbody>
</table>

Figure 3. Hadassah Hospital on Balfour Street, Tel Aviv, in the early 1940s.

*Travelling preacher
Prof. Itzhak Katzenelenbogen

Prof. Katzenelenbogen came from a well-known family of rabbis and Kohanim (the priestly tribe in Judaism) which came from Diether county in Prussia. The family settled in Katzenelenbogen at the beginning of the 14th century when King Henry the VII granted his approval for twelve Jews to settle in the county. The family, dispersed in Italy, Poland, Germany, Russia, Alaska and the United States, went on to produce leading rabbinic leaders. To this day, many descendants of the family serve as rabbis. Prof. Katzenelenbogen was also a distant relative of Karl Marx.

Born in 1896 in the Polish city of Lodz, Prof. Katzenelenbogen studied medicine in Gretz, Austria from 1915 to 1921 after which he specialized in dermatology and venereology under Prof. Hermann in Vienna, Prof. Bushke in Berlin, Prof. Gougerot in Paris and Prof. Archibald in London. In 1924 he immigrated to Palestine and worked for a while in Haifa. In 1924 he moved to Jerusalem where he worked at Bikur Holim Hospital as director of the Dermatology and Venereology Clinic and also in the General Sick Fund Consulting Clinic. During 1932–1940 he also managed the Dermatology and Venereology Clinic attached to the German Hospital in Jerusalem.

In 1957, at age 61, Prof. Katzenelenbogen was appointed the first director of the Department of Dermatology and Venereology at Beilinson Hospital in Petah Tikva. In 1960 he received the title Clinical Associate Professor at the Hebrew University in Jerusalem and in 1965 was appointed Full Professor of Dermatology at Tel Aviv University. He retired from the directorship in 1967. He died in 1971.

Prof. Katzenelenbogen was an erudite personality, a man of many talents who spoke several languages fluently and was well known in the dermatology community around the world. He researched leishmaniasis and wrote extensively on the immunological aspects of the disease, and described the pathergy of Behcet’s disease as well as the subtropical variant of lichen planus, known today as lichen actinicus.

Department of Dermatology – Rambam Hospital, Haifa

In 1963 the Dermatology Clinic was opened with six beds as part of the Department of Internal Medicine. Two years later it was established as an independent department. Prof. Salim Haim was the department’s first director and headed it until 1984. The first resident in the department was Dr. Aryeh Shafir. Prof. Rachel Freedman-Birnbaum, who was the second resident in the department, served as the department director from 1984 until 2000. She was replaced by Prof. Reuven Bergman in 2000 who presently directs the department [Table 5].

Prof. Salim Haim

Prof. Haim was born in Bagdad in 1919 and in 1944 received his M.D. degree at the Royal College in Baghdad. He immigrated to Israel in 1951 and worked at Prof. Ziperkowsky’s side in the Dept. of Dermatology and Venereology at Tel Hashomer Hospital. In 1954 Prof. Haim worked as an army physician at the #10 Hospital in Haifa. In 1957 he established the dermatology and venereology department at Rambam Hospital in Haifa, serving as department head until his death in 1984. In 1973 he received his associate professorship in Dermatology and Venereology at the Technion Faculty of Medicine in Haifa and in 1979 became full professor.

Prof. Haim was one of the founding fathers of dermatology and venereology in Israel. His extensive research of Behcet’s disease made him famous worldwide. He felt strongly that dermatological diseases are multisystemic, and in his many studies attempted to prove this approach. He was one of the first teachers at the Technion Faculty of Medicine in Haifa.

Department of Dermatology – HaEmek Hospital, Afula

The first dermatology clinic in the Jezreel Valley was established in 1970 and the Department of Dermatology at HaEmek Hospital in 1978. It was directed by Dr. Fela Zukerman until 2000. Dr. Zukerman was the first local graduate who specialized in Dermatology and Venereology (in the dermatology department at Hadassah Hospital in Jerusalem). In 2000 Dr. Deganit Rosenman took over as head of the department [Table 6].

Dr. Fela Zukerman

Dr. Zukerman was born in 1935 in Sambour, Poland. She studied medicine between 1953 and 1957 at Werclev in Poland, and immigrated to Israel in 1957 where she continued her medical studies at the Hebrew University School of Medicine, graduating in 1960. Between 1962 and 1968 Dr. Zukerman specialized in dermatology and venereology at Hadassah. She transferred to HaEmek Hospital in Afula in 1970 where she established the Department of Dermatology and Venereology and served as its director until 2000.

Dr. Zukerman was a member of the founding generation of dermatology and venereology in Israel and truly embodies the expression ‘salt of the earth’. Modest, unassuming, an excellent clinician and an outstanding teacher, she has produced gen-
eration upon generation of successful students. She significantly advanced both the field of dermatology and venereology in Israel and the dermatology department at HaEmek Hospital in Afula.

**Department of Dermatology – Soroka University Medical Center, Beer Sheva**
The Department of Dermatology at Soroka Hospital in Beer Sheva opened in May 1989 under the directorship of Prof. Sima Halevy, who still heads the department.

**Prof. Sima Halevy**
Prof. Sima Halevy was born in Israel and studied medicine at the Sackler Faculty of Medicine at Tel Aviv University, graduating in 1972. Between 1975 and 1980 she specialized in dermatology and venereology at Beilinson Hospital in Petah Tikva, and during 1980–1989 served as senior physician in the Dept. of Dermatology and Venereology at Beilinson Hospital in Petah Tikva. Since 1989 she has been directing the dermatology department at Soroka Hospital in Beer Sheva.

Prof. Halevy is an outstanding clinician and researcher. She is an expert on drug eruptions and the leading dermatologist in this field in Israel. She is one of the founders and leaders of the international SCAR (Severe Cutaneous Drug Reactions) Society and many of her articles on drug eruptions have appeared in leading journals.

**Conclusion**
The story of dermatology and venereology in Israel and the story of the founding fathers is the story of Zionism of the last 100 years. Physicians came from all over the world to establish a Jewish state and to build up the medical profession. The achievements and high level in both research and clinical dermatology are the best proof of their success.

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email: aingber@live.com

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**Capsule**

**Immune stimulation**

During vaccination, an additional stimulus to the immune response is often needed and is provided by adjuvants. Lipopolysaccharide (LPS) in the outer membrane of gram-negative bacteria is a potent stimulant of the innate immune response, but the potential for toxic shock does not allow for its use in humans. A recently approved adjuvant, monophosphoryl lipid A (MPLA), has limited side effects compared to LPS from which it is derived. Mata-Haro et al. (Science 2007;316:1628) show that MPLA activates only a specific signaling component of the Toll-like receptor 4 (TLR4) pathway and avoids the myeloid differentiation factor 88 arm of TLR4 signaling, which can account for the much higher toxicity associated with LPS. Ohto et al. (p. 1632) determined crystal structures of the TLR4 co-receptor MD-2 alone and in complex with the anti-endotoxic tetra-acylated lipid A core of LPS. MD-2 has a deep hydrophobic cavity that accommodates the four acyl chains of the lipid core.

Eitan Israeli

**Capsule**

**Mitochondria as drivers of metastasis**

Most cancer deaths occur when cells in a primary tumor metastasize, yet the mechanisms by which tumor cells acquire metastatic properties remain poorly understood. Ishikawa et al. explored the role of mitochondria in this process by taking mouse tumor cell lines with either a high or low propensity to metastasize and swapping their mitochondrial DNA (mtDNA). Interestingly, the recipient cells acquired the metastatic potential of the cells donating the mtDNA. In one tumor cell line examined in detail, the mtDNA conferring high metastatic potential was found to harbor mutations that led to overproduction of reactive oxygen species (ROS), and up-regulation of nuclear genes involved in metastasis. Pretreatment of tumor cells with ROS scavengers reduced their ability to metastasize in mouse models, suggesting a possible avenue for the development of therapies to suppress metastasis.

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