

The Bat Sheva de Rothschild workshop on  
**Music and Brains: The Surprising Link**

An interface between Music Cognition and Neuroscience

**International Conference, Lectures and Concerts**

The Konrad Adenauer Conference Centre Mishkenot Sha'ananim

**Day 1 - Sunday, February 10/2/2013,**

**Session 1: Expectations in Music**

9:00-10:00 **Prof. David Huron:** "Statistical Learning Meets Music History: Toward a Cognitive History of the Major and Minor Scales"

10:00-11:00 **Prof. Naftali Tishby:** "Predictive Information: Expectations, Surprise, and Emergence of Hierarchies in Perception and Planning"

11:00-11:30 Break

11:30-12:30 **Concert I, Prof. Michael Wolpe:** "Wagner and the Twilight of Tonal Music"

G. Mahler, piano quartet.

Roni Shavit, piano

Anat Pagis, violin

Yeshayahu Ginzburg, viola

Fredi Julius, cello

R. Schumann - from Dichterliebe (H. Heine)

1. Im wunderschönen Monat Mai

2. Aus meinen Tränen sprießen

3. Die Rose, die Lilie, die Taube, die Sonne

4. Wenn ich in deine Augen seh

5. Ich will meine Seele tauchen

F. Liszt – Im Rhein im schöne strome (H. Heine)

Oshri Segev, tenor

Tania Schtshopak, piano

A. Berg - Kennst du das Land?

F. Schubert - Über Thal und Fluss

P. I. Tchaikovsky - Net, tolka tot kto znal

Shaked Bar, soprano

Zvi Zemel, piano

J. Brahms - Vergebliches ständchen

G. Faure - Sérénade Toscan

G. Donizetti - A Mezzanotte

Avigail Harel, soprano

Zvi Zemel, piano

12:30-3:00 Break

## **Session 2: Music and Language**

3:00-4:00 **Prof. Stefan Koelsch:** "Towards a Neural Basis of Processing Musical Semantics"

4:00-5:00 **Concert II:** "22 Foundation Letters"

Victoria Hanna, vocal artist

Adi Forti, kanun

5:00-5:30 Break

5:30-6:30 **Prof. Yosef Grodzinsky:** "Neural Substrates for Linguistic and Musical Abilities: A Neurolinguist's perspective"

## **Day 2 - Monday, February 11/2/2013,**

### **Session 3: Music and cognitive processes**

9:00-10:00 **Prof. Istvan Winkler:** "Sound Processing Prerequisites of Music-Perception/Communication in Young Infants"

10:00-11:00 **Prof. Merav Ahissar:** "The Impact of Musical Training on Linguistic Abilities"

11:00-11:30 Break

11:30-12:30 **Concert III, Dr. David Shemer:** "The Art of Polyphony"

J. S. Bach: 4 canons from the Goldberg Variations

3 Counterpoints from the Art of Fugue

Ricercare a 3, from the Musical Offering

Canons from the Musical Offering

Prelude and Fugue in a minor, BWV 894

David Shemer, harpsichord

Noa Shirvan, Tehila Meller, Alma Meir-Nir, Tal Gutman, recorders

### **Session 4: Structure in Music**

3:00-4:00 **Prof. Dmitri Tymoczko:** "The Epistemology and Syntax of Classical Tonal Harmony"

4:00-5:00 **Concert IV, Dr. Ron Regev:** "The Evolution of Sonata Form: Interaction between Tonal and Thematic Planes"

S. Bach - Allemande, from French Suite no. 6 in E major

D. Scarlatti - Sonata in C major, K. 159

C. P. E. Bach - Moderato from Württemberg Sonata no. 1, Wq 49

W. A. Mozart - Adagio-Allegro from String Quartet KV465 ("Dissonance")

L. v. Beethoven - Allegro from Sonata no. 5 for Piano and Violin, op. 24 ("Spring")

F. Liszt - Ballade no. 2 in B minor

Ron Regev, piano

Barak Shosberg, violin

Daniel Zin, violin

Shir-ran Ynon, viola

Edi Hausman, cello

5:00-5:30 Break

5:30-6:30 **Prof. Petr Janata:** "Relating Tonal Structure to Brain Function"

## **Day 3 - Tuesday, February 12/2/2013,**

### **Session 5: Music and Neurophysiology**

9:00-10:00 **Prof. Alain de Cheveigne:** "Scale, Time, Memory, Modulation"

10:00-11:00 **Prof. Eli Nelken:** "The Highs and Lows of the Auditory System - Connecting Single Neurons with Music"

11:00-11:30 Break

11:30-12:30 **Concert V, Prof. Eitan Globerson:** "Our Brain as Pianists"  
Etudes by Chopin (from op. 10 and 25) and Rachmaninoff (op. 39).  
Eitan Globerson, piano

12:30-3:00 Break

### **Session 6: Pitch Representation in Music and Brains**

3:00-4:00 **Prof. Ian Quinn:** "The Miracle of Relative Pitch"

4:00-5:00 **Concert VI, Prof. Taiseer Elias:** "Arabic Music: From Tonal Structures (*Maqamat*) to Emotional Meaning"

Taiseer Elias, oud  
Jiana Naddaf: voice  
Emil Bishara: oud  
Shukry Amsis: qanun  
Attaf Bisharat: riq  
Assad Mattar: violin

5:00-5:30 Break

5:30-6:30 **Prof. Xiaoqin Wang (Heller Lecture):** "Pitch and Harmonicity Representations in Auditory Cortex"

## **Day 4 - Wednesday, February 13/2/2013,**

### **Session 7: Rhythm**

9:00-10:00 **Dr. Bruno Repp:** "The Phase Correction Response in Sensorimotor Synchronization"

10:00-11:00 **Prof. Simha Arom:** "The Forest for the Trees: The Metric and Rhythmic Foundations of African Music"

11:00-11:30 Break

11:30-12:30 **Concert VII, Dr. Menachem Wiesenberg:** "Mostly Rhythm"  
Various pieces for jazz ensemble  
O. Messian: Quatuor pour la fin du temps (one movement)  
B. Bartok: Contrasts (last movement)

Menachem Wiesenberg, piano  
Michael Milton, piano  
Liad Mor, bass  
Baruch Regev, percussion  
Eyal Nezer, tenor saxophone  
Benjamin Greiniman, alto saxophone  
Jonathan Amit, soprano saxophone  
Yoav Gilaad, guitar  
Or Posti, clarinet  
Elisabeth Cook, cello  
Ido Akov, piano  
Barak Shosberg, violin

12:30-3:00 Break

**Session 8: Tension and surprise: the dynamics of music pieces.**

3:00-4:00 **Dr. Roni Granot and Prof. Talma Hendler:** "Ricerca no. 2 for Music analysis, Music Cognition and the Brain: Lessons from Ligeti"

5:00-5:30 Break

5:30-6:30 **Prof. Carol Lynne Krumhansl:** "Tonality and Tension"

8:00 **Final Concert, Dr. Yoel Greenberg:** "Elements of Surprise"

J. Haydn: Opus 33 No. 2 No.2, Hob. III:38

D. Shostakovich: String Quartet No. 3 in F major (Op. 73)

The Carmel Quartet